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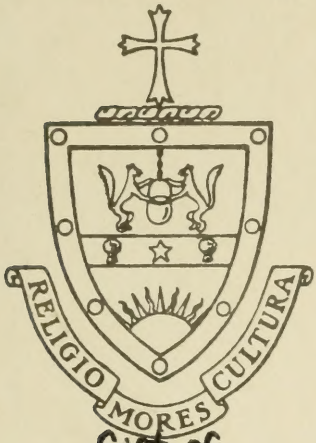

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Commonwealth of Pennsylvania

REPORT

OF THE

Department of Mines

OF PENNSYLVANIA

Part II—Bituminous

1909

HARRISBURG:
C. E. AUGHINBAUGH, PRINTER TO THE STATE OF PENNSYLVANIA
1910

VIRTUE
LIBERTY AND
INDEPENDENCE

LETTER OF TRANSMITTAL

Department of Mines,

May 7, 1910.

To His Excellency, Edwin S. Stuart, Governor of Pennsylvania:

Sir: In compliance with the Act of Assembly of April 14, 1903, I beg to submit herewith, for transmission to the General Assembly, the report of the Department of Mines for the year ending December 31, 1909. Part I covers in detail the operations in the twenty Anthracite Districts, Part II the operations in the twenty-one Bituminous Districts, as returned by the inspectors. Observations and suggestions are also offered relative to mining subjects.

Respectfully submitted,

JAMES E. RODERICK,
Chief of Department of Mines.

REPORT

OF THE

DEPARTMENT OF MINES

INTRODUCTION

The year 1909 was a fairly prosperous one in the coal industry of Pennsylvania. The bituminous output amounted to 136,205,695 tons as compared with 114,937,375 tons in 1908, an increase of 21,268,320 tons, which shows a healthy recovery from the depression that followed the panic of 1907. The anthracite output, however, amounted to only 80,223,833 tons, as against 83,543,243 tons in 1908, a decrease of 3,319,410 tons. This reduction was due chiefly to adverse financial conditions, and it is believed that during 1910 the recovery in the various lines of industry will result in bringing the anthracite tonnage back to the great production of 1907. Had the price of bituminous coal been higher the operators might be deemed to have had a very profitable year, but it is a well known fact that for sometime past the large consumers have been getting coal at bargain prices. Keen competition and a not overly active market, in conjunction with a lack of organization among the operators, have resulted in a total abolition of profit in some instances and in a lamentable cutting down generally. It is a fact that it has cost some operators in the Central Pennsylvania district more to produce coal during the year than they have obtained for it. Certain it is that the margin of profit on soft coal for the past two years has been too small, if the hazardous nature of the business be considered. It is rather unfortunate, from the viewpoint of the bituminous operators, that they cannot restrict the production to meet more nearly the needs of the trade, as is done in the anthracite region, and thus avoid over-production, which of necessity means lower prices.

The present conditions, however, indicate that the coming year may be more prosperous, if prices are adjusted to net a reasonable profit, and undoubtedly the operators will endeavor to obtain higher prices in keeping with the higher prices that prevail in other commodities.

The redeeming feature of the bituminous trade was the increase in the production of coke. In 1908 the production fell to 13,839,656

tons; in 1909 it rose again to 22,503,944 tons, and as the prices were high, reaching in some instances $3.00 a ton at the ovens, the result to the producers was exceedingly satisfactory.

The year was singularly free from accidents from explosions of gas and dust. The mines that are deemed dangerous escaped entirely from serious explosions, and, strange to say, the only explosions of consequence that occurred during the year occurred in the so-called safe non-gaseous mines, one at Wehrum by which 21 persons were killed, and one at Franklin by which 13 persons were killed, both in Cambria county. This record is one to be proud of and reflects credit upon the work of the inspectors, the supervision of the mine officials and the carefulness of the employes. As a general thing, accidents are attributed to the ignorance of the employes or to their neglect to obey the rules of safety; and the charge is frequently well founded, especially where large numbers of foreigners, unfamiliar with the English language, are employed. These men, unable to read the rules of the mine and frequently incapable of comprehending the instructions and advice given them, are a constant menace to life, especially in gaseous mines. In this State, where mine management has reached a high degree of perfection, where State supervision is constant and capable, and where the equipment is generally the best and most modern, one would naturally expect to find the number of casualties correspondingly low, but unfortunately this has not been the case. The conditions that tend to safety are generally nullified by the carelessness and incompetency of certain employes, and no great improvement can be hoped for until the foreign element is educated sufficiently to work more intelligently and with more regard for the physical welfare, not only of themselves, but of their fellow-workmen. The rules of the mine should also be made more stringent and there should be more stringent enforcement of them. To charge, however, that miners as a class are lacking in intelligence and carefulness is an unfair and unjust aspersion upon a most worthy army of workers, among whose ranks are to be numbered many men who are not only skillful and careful, but are also keenly alert mentally. The frequent graduation of these men to positions of responsibility in the mining industry and their ability to make a place for themselves in the social affairs of the community conclusively show their caliber morally, mentally and intellectually.

It may be mentioned here in connection with the matter of accidents that Pennsylvania, by reason of her great prominence in the mining industry, is subjected to much undue criticism for the fatalities that occur within her boundaries, and is being constantly compared with other States and countries, frequently to her disadvantage, but as the death toll by accidents during the past year has been somewhat reduced in this State, we give herewith a comparison with the figures reported from Great Britain, a country noted for careful and conservative mine management.

In 1908 the production of Great Britain was 261,512,214 tons, and the number of fatal accidents inside, 1,162, or 4.44 lives lost for every 1,000,000 tons produced. The production of the bituminous mines of Pennsylvania in 1908 was 114,937,375 tons, and the number of fatal accidents inside 550, or 4.78 lives lost for every 1,000,000 tons produced.

In 1909 the production of Great Britain was 263,758,562 tons and the number of fatal accidents inside 1,317, or 4.99 lives lost for every 1,000,000 tons produced. The production of the bituminous mines of Pennsylvania was 136,205,695 tons, and the number of fatal accidents inside 475, or 3.49 lives lost for every 1,000,000 tons produced. The average for the two years shows that for every 1,000,000 tons produced in Great Britain 4.71 lives were lost; and for every 1,000,000 tons produced in the bituminous mines of Pennsylvania 4.13 lives were lost, a result somewhat favorable to Pennsylvania.

We desire to call attention to the number of tons produced per employe. In Great Britain in 1908 the number of tons was 328 per inside employe; in Pennsylvania, 753 tons. In Great Britain, in 1909, the number of tons produced per inside employe was 322; in Pennsylvania, 893 tons. The vast difference between these figures relating to the two territories indicates the strenuous and rapid methods in vogue among the Pennsylvania workmen, and speaks volumes for the energy, activity and resourcefulness of our miners. At the same time they make clear one of the great causes of accidents, and no fair comparison can be made without taking into consideration the matter of production per employe.

In keeping with the constant desire of the department to improve the conditions that surround the mining industry, a change was made July 1 in the inspection districts of the bituminous region by which twelve of the inspectors were transferred to new locations. This change, it was felt, was necessary in order to enforce full compliance with the provisions of the mining laws. The department was impelled to this action by a remark of one of the mine superintendents or managers who appeared before the Committee on Mines and Mining at the last session of the Legislature. He stated, "The inspectors themselves are responsible for the great loss of life in their respective districts because they do not enforce compliance with the provisions of the mining laws." While deeming this statement a most unfair criticism upon the work of the inspectors, the department thought that perhaps a transference of inspectors, as stated above, might be conducive to better results. The change was therefore made and has in some ways proved a beneficial one, particularly to the mine employes.

In reviewing the year mention should be made of the work of the Pittsburg Testing Station, established by the Technologic Branch of the Geological Survey of the United States Government. The station has tested many explosives, and has from time to time issued Bulletins naming the explosives that are deemed safe and satisfactory for use in the mines. They are designated as "permissible" explosives. This is an important and necessary work and will, no doubt, result ultimately in reducing explosions in the mines, a condition that not only the miners and officials will welcome, but a condition that the public in general will approve and commend. With the use of permissible explosives in gaseous and dusty mines, the exercise of sound judgment in dampening and removing the dust and proper attention given to ventilation, the possibility of explosions will be greatly lessened.

Another notable and commendable feature of the year was the establishment by some of the larger companies of rescue stations equipped with safety helmets for use in conducting rescue work after

explosions have occurred. It is to be hoped that the loss of life will be reduced by the use of these appliances that make it possible for men to penetrate into the mines where the gas and afterdamp have heretofore rendered their entrance impossible. It may also be mentioned in connection with the subject of safety that in some sections the companies have issued strict orders prohibiting the use of intoxicating liquors by their employes. As the penalty for disobedience of these orders is dismissal, the result of this action will no doubt be the elimination, to some extent at least, of a fruitful source of danger. All things considered, a hopeful view may be taken of the future of the coal industry in Pennsylvania. In fact, so far as safety is concerned, the best thought of the Department of Mines, the State inspectors, mining engineers, superintendents and managers is being given to the invention and adoption of appliances and means that will afford greater safety to the thousands of persons employed in this industry, conserve the great coal deposits and protect the vast and costly plants that have been established throughout the mining region.

Mention may also be made of the legislation proposed for the protection of life and property about the coal mines. In several States attempts are being made either to revise the present laws or enact new ones, and the time is probably not far distant when all will have been done in the way of legal enactment that it is possible to do to relieve this great industry of the reproach brought upon it by reason of inadequate protective measures. In Pennsylvania a comprehensive bill, prepared by a commission created by Legislative authority, was submitted to the Legislature at the session of 1909, but it never became a law, not even having been reported out of committee. Some account of this proposed legislation is given elsewhere in this report.

Other matters treated of elsewhere in this report are: The Use of Permissible Explosives; Recent Explosions of Gas and Dust; Child Labor; Pensions for Widows and Orphans, and The Proposed Mine Law.

COAL PRODUCTION

The table herewith shows the actual number of days worked in each district during 1909, and the average daily production; also the average production per day for the region, 646,889 tons. Assuming that the mines had worked 280 days, the total bituminous production would have been 181,128,920 tons. The table also shows the production of each district on the same basis. In arriving at the average number of tons produced per day, the total number of days was divided into the total production of each mine in each district:

Districts	Average number of days worked	Production	Average production per day	Estimated production of 280 days
First,	205	5,769,941	28,146	7,880,880
Second,	233	8,689,340	37,293	10,442,040
Third,	199	3,565,252	17,916	5,016,480
Fourth,	200	6,337,112	31,686	8,872,080
Fifth,	233	7,216,028	30,970	8,671,600
Sixth,	226	7,833,115	34,660	9,704,800
Seventh,	171	7,152,877	41,829	11,712,120
Eighth,	183	3,924,068	21,443	6,004,040
Ninth,	258	7,946,296	30,800	8,624,000
Tenth,	181	5,397,972	29,823	8,350,440
Eleventh,	228	7,794,985	34,189	9,572,920
Twelfth,	201	7,768,463	38,649	10,821,720
Thirteenth,	198	6,316,405	31,901	8,932,280
Fourteenth,	222	5,676,494	25,570	7,159,600
Fifteenth,	197	7,272,987	36,919	10,337,320
Sixteenth,	263	7,082,047	26,928	7,539,840
Seventeenth,	193	6,006,011	31,119	8,713,320
Eighteenth,	165	3,053,500	18,506	5,181,680
Nineteenth,	228	7,920,205	34,738	9,726,640
Twentieth,	205	5,575,644	27,198	7,615,440
Twenty-first,	216	7,906,944	36,606	10,249,680
Totals,	--------	136,205,695	646,889	181,128,920

THE USE OF PERMISSIBLE EXPLOSIVES

Owing to the many explosions that occur in coal mines, the question of safety, in so far as the kind of explosives used is concerned, has become one of the most prominent questions in connection with the operation of the mines. Realizing that loss of life and damage to the mines are frequently due to the use of black powder, the Department has been endeavoring to stop the use of this explosive in mines where its use might be disastrous. Beginning with the first of the year the so-called safety explosives have been recommended for use in several of the most gaseous bituminous mines, but just

what particular explosives should be used could not be determined until the result was known of the tests made by the Testing Station established at Pittsburg by the United States Geological Survey.

The subject was brought vigorously to the attention of the inspectors in a communication addressed to them under date of July 12. This communication was the direct result of the charge (referred to in the Introduction of this report) that the inspectors were responsible for the loss of life in their several districts. The Department urged upon them the necessity for exacting strict compliance with the mining laws in regard to safety conditions; the use of permissible explosives (as determined by the Testing Station) in gaseous and dusty mines was demanded; and the use of black powder, wherever its use was a menace to life, was prohibited. The ruling of the Department in this letter regarding the use of black powder and permissible explosives met with great opposition from the mine workers and resulted in considerable correspondence on the subject. A brief history of the circumstances, together with the letter of the Department to the inspectors and other correspondence relating to the case, is given herewith. The bulletin issued by the United States Geological Survey in regard to tests made of explosives is also reproduced, together with a list of the explosives that have up to date been tested and approved.

Copy of letter sent to Inspectors under date of July 12, 1909:

Dear Sir: Insist on having ample ventilation at all working faces of rooms and entries. Pay no attention to maximum quantity of air as provided by law, but insist on ample ventilation at the working faces "to an extent that will dilute, carry off and render harmless the noxious and dangerous gases."

In measuring the quantity of air in any split you are hereby directed to take the measurement in the last cut-through beyond the last room turned on each entry, or in the entry beyond the last room turned.

In gaseous and dusty mines do not allow the use of any explosives except "permissible" explosives, as determined by the Testing Station at Pittsburg.

If in your opinion the use of black powder in a non-gaseous mine is a menace to life, you are directed to notify the mine foreman, superintendent or manager of that fact, and if they insist on the continued use of black powder against your protest, you will report the matter to the Department of Mines, and two or more of the other Inspectors will be sent to assist you in making further investigation. A report of the inspectors' investigation shall be sent to the mine foreman, superintendent or manager, and also to the Department of Mines.

Your attention is called to Sections 1, 2, 3 and 4 of Article 5 of the Mine Law. You will demand strict compliance with their provisions.

Your attention is also called to Section 5 of Article 5. This section is broad and comprehensive, but not definite enough. When in your opinion a mine or a section of a mine should be worked by the use of safety lamps exclusively, you are directed to so notify the mine foreman, superintendent or manager. If they refuse to comply with your request, you will notify the Department of Mines immediately, and two or more of the other inspectors will be sent to assist you in making further investigation. A report of the inspectors' investigation shall be sent within five days to the mine foreman, superintendent or manager, and also to the Department of Mines.

Section 5 of Article 5 also provides that, "In all mines or parts of mines worked with locked safety lamps the use of electric wires and electric currents is positively prohibited, unless said wires and machinery and all other mechanical devices attached thereto and connected therewith are constructed and protected in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of the mine." This provision is very important, and you are hereby directed to see that in all the mines in your district wherein electricity is used as power for haulage, coal-cutting, pumping or winding, the above provision is fully complied with. When you find any violation of this part of Section 5, it shall be your duty to notify at once the mine foreman, superintendent or manager of the fact, with a request that they comply with said provision of the law. If they fail or refuse to comply, you will at once notify the Department of Mines, and two or more of the other Inspectors will be sent to assist you in making a final investigation of the matter. A report of said investigation shall be sent to the mine foreman, superintendent or manager, and also to the Department of Mines.

Rule 60 of Article 20 provides that, "In mines where coal dust has accumulated to a dangerous extent, care shall be exercised to prevent said dust from floating in the atmosphere by sprinkling it with water, or otherwise, as far as practicable." This rule is very brief, but in my opinion you are given full power to demand that the dust shall not be allowed to float in the atmosphere of the mine.

If at any time you think a mine has become dangerous through the accumulation of coal dust or from any undue quantity being allowed to float in the atmosphere, you are hereby directed to notify the mine foreman, superintendent or manager of the fact, with a request that the matter be remedied at once. In case of refusal or delay on their part, you will promptly notify the Department of Mines, and two or more of the other inspectors will be sent to assist you in making a final investigation of the matter. A report of said investigation shall be sent to the mine foreman, superintendent or manager and also to the Department of Mines.

If you are not in possession of a hygrometer, the Department, on your request, will send you one suitable to carry with you into the mines. I hereby direct you to note the humidity of the air entering the several splits and also at the place where the air is measured in each split. This you will do in all your inspections of a mine, especially during July, August and September. If the condition of a mine is considered safe from explosions of coal dust during these months, you are directed to insist that the air in the winter or cold months be of the same humidity as in the summer months.

Without going into the matter further, I desire to say that this Department will expect and insist that you enforce the provisions of the mine law without fear or favor in an effort to reduce to a minimum the loss of life in the mines in your district.

Very truly yours,
JAMES E. RODERICK,
Chief of Department of Mines.

Paragraph 3 of this letter, relating to the use of permissible explosives, aroused a great deal of feeling among the Mine Workers in and about Pittsburg. When the contents of this letter were made known to the operators, some of them in the river districts posted notices, August 18, to the following effect:

"To all Miners and Employes of this Mine:

You are notified that on and after August 25th the use of black powder as an explosive must be discontinued. After that date only such explosives will be permitted as have been recommended by the State Mine Inspectors of Pennsylvania. The use of black powder is discontinued by order of the State Mining Department.
(Signed.)

.....
Superintendent."

The leaders of the Mine Workers in and about Pittsburg bitterly opposed the use of permissible explosives, advancing as an argument in support of their position that it would reduce the earnings of the miners, and declaring that the Department of Mines had no authority under the law to enforce their use.

Many of the employes of the river mines in and about Pittsburg went out on a strike. Many meetings were held at which the operators and miners endeavored to reach some satisfactory settlement of the question. The Chief of the Department of Mines attended one of the meetings, at which he stated emphatically that the use of permissible explosives had come to stay, and that all persons refusing to comply with the orders issued regarding their use would be prosecuted.

The following letter, relating to the subject, was received under date of September 1 from Mr. T. L. Lewis, President of the United Mine Workers of America:

"Hon. James E. Roderick, Chief of Department of Mines, Harrisburg, Pa.:

Dear Sir: The bearers of this communication, Michael Barry, Martin J. Flyzik and Edward McKay, are a committee appointed by me to wait on you and explain the necessity of your Department refraining from enforcing immediately the order that the miners must use 'permissible' explosives instead of black powder.

There is a special district convention to meet in Pittsburg, Pa., the coming week and this question will be brought to the attention of the delegates.

The International Organization desires to co-operate with the Mining Departments of the different states in providing any means that will add to the safety of the mine workers. We desire, however, to have time to investigate certain phases of the effect of the use of new explosives and we believe that your Department and yourself will not hesitate to act moderately in connection with this question.

The gentlemen appointed to come and see you will explain in detail any other matters you desire to know with reference to their mission.

With the hope that we may be able to find an intelligent solution of the controversy growing out of the orders issued by your Department, I remain,

Yours very truly,

T. L. LEWIS,
President, U. M. W. of A."

The following answer was sent to Mr. Lewis's letter, under date of September 4:

"Mr. T. L. Lewis, President, United Mine Workers of America, Indianapolis, Indiana:

Dear Sir: Your letter of the first instant, introducing Michael Barry, Martin J. Flyzik and Edward McKay, has been received and contents have been carefully noted.

In reply to your suggestion that 'the Department of Mines refrain from enforcing immediately the order that the miners must use 'permissible' explosives instead of black powder,' I beg to say that I am still of the opinion that the continued use of black powder in gaseous dusty mines is a menace to the life of the miner and also to the property of the operator. Yet, in view of the contents of your letter and the statement of your committee, I think it my duty to comply with your request and will so notify the Inspectors at once.

Very truly yours,

JAMES E. RODERICK,
Chief of Department of Mines."

On the same date, September 4, the following letter of instructions was sent to all the Bituminous Inspectors:

"Dear Sir: Your attention is called to a paragraph of a letter from this Department, dated July 12, 1909, which reads:

> 'In gaseous and dusty mines do not allow the use of any explosives except 'permissible' explosives, as determined by the Testing Station at Pittsburg.'

On account of the controversy among the United Mine Workers in the Pittsburg district, you are hereby instructed not to enforce compliance with said paragraph until further advised.

However, I desire to call your special attention to part of section one of article eleven of the bituminous mine law, which reads as follows:

> * * 'In case, however, where, in the judgment of the mine inspector * * any mine or part of a mine is in such dangerous condition (from the use of black powder or from any other cause or practice) as to jeopardize life or health, he shall at once notify two mine inspectors of the other districts, whereupon they shall at once proceed to the mine * * and examine into the matter, and if * * they shall be agreed in the opinion that there is immediate danger, they shall instruct the superintendent of the mine in writing to remove such condition forthwith * * *.'

I shall expect full compliance with this part of section one of article eleven.

Yours truly,

JAMES E. RODERICK,
Chief of Department of Mines."

The companies interested then posted the following notice at each of their mines:

"To the Officers and Men of ..... Mine:

At the request of the National Miners' Organization the notice of August 18, advising that the use of black powder shall be discontinued on and after August 25, 1909, is hereby withdrawn. Such a request is based on the desire and intentions of proceedings to determine the result to the miners under the order of the State Mining Department regarding the use of substitute for black powder."

The immediate result of the posting of this notice was the return of the miners to work.

The above letter from the Department, dated September 4, is still in force.

BULLETIN ISSUED BY UNITED STATES GEOLOGICAL SURVEY REGARDING PERMISSIBLE EXPLOSIVES

As a part of the investigation of mine explosions authorized by Congress in May, 1908, it was decided by the Secretary of the Interior that a careful examination should be made of the various explosives used in mining operations, with a view to determining the extent to which the use of such explosives might be responsible for the occurrence of these disasters.

The preliminary investigation showed the necessity of subjecting to rigid tests all explosives intended for use in mines where either gas or dry inflammable dust is present in quantity or under conditions which are indicative of danger.

With this in view, a letter was sent by the Director of the United States Geological Survey on January 9, 1909, to the manufacturers of explosives in the United States, setting forth the conditions under which these explosives would be examined and the nature of the tests to which they would be subjected.

Inasmuch as the conditions and tests described in this letter were subsequently followed in testing the explosives given in the list below, they are here reproduced, as follows:

(1) The manufacturer is to furnish 100 pounds of each explosive which he desires to have tested; he is to be responsible for the care, handling, and delivery of this material at the testing station on the United States arsenal grounds, Fortieth and Butler streets, Pittsburg, Pa., at the time the explosive is to be tested; and he is to have a representative present during the tests, who will be responsible for the handling of the packages containing the explosives until they are opened for testing.

(2) No one is to be present at or to participate in these tests except the necessary government officers at the testing station, their assistants, and the representative of the manufacturer of the explosives to be tested.

(3) The tests will be made in the order of the receipt of the applications for them, provided the necessary quantity of the explosive is delivered at the plant by the time assigned, of which due notice will be given by the Geological Survey.

(4) Preference will be given to the testing of explosives that are now being manufactured and that are in that sense already on the market. No test will be made of any new explosive which is not now being manufactured and marketed, until all explosives now on the market that may be offered for testing have been tested.

(5) A list of the explosives that pass certain requirements satisfactorily will be furnished to the State mine inspectors, and will be made public in such further manner as may be considered desirable.

TEST REQUIREMENTS FOR EXPLOSIVES

The tests will be made by the engineers of the United States Explosives Testing Station at Pittsburg, Pa., in gas and dust gallery No. 1. The charge of explosive to be fired in tests 1, 2 and 3 shall be equal in disruptive power to one-half pound (227 grams) of 40 per cent. nitroglycerin dynamite in its original wrapper, of the following formula:

Nitroglycerin,	40
Nitrate of sodium,	44
Wood pulp,	15
Calcium carbonate,	1
	100

Each charge shall be fired with an electric fuse of sufficient power to completely detonate or explode the charge, as recommended by the manufacturer. The explosive must be in such condition that the chemical and physical tests do not show any unfavorable results. The explosives in which the charge used is less than 100 grams (0.22 pound) will be weighed in tinfoil without the original wrapper.

The dust used in tests 2, 3, and 4 will be of the same degree of fineness and taken from one mine.*

*With a view to obtaining a dust of uniform purity and inflammability.

Test 1.——Ten shots with the charge as described above, in its original wrapper, shall be fired, each with one pound of clay tamping, at a gallery temperature of 77°F., into a mixture of gas and air containing eight per cent. of methane and ethane. An explosive will pass this test if all ten shots fail to ignite the mixture.

Test 2.—Ten shots with charge as previously noted, in its original wrapper, shall be fired, each with one pound of clay tamping at a gallery temperature of 77°F., into a mixture of gas and air containing four per cent. of methane and ethane and twenty pounds of bituminous coal dust, eighteen pounds of which is to be placed on shelves laterally arranged along the first 20 feet of the gallery, and two pounds to be placed near the inlet of the mixing system in such a manner that all or part of it will be suspended in the first division of the gallery. An explosive will pass this test if all ten shots fail to ignite the mixture.

Test 3.—Ten shots with charge as previously noted, in its original wrapper, shall be fired, each with one pound of clay tamping at a gallery temperature of 77°F., into forty pounds of bituminous coal dust, twenty pounds of which is to be distributed uniformly on a horse placed in front of the cannon and twenty pounds placed on side shelves in sections 4, 5, and 6. An explosive will pass this test if all ten shots fail to ignite the mixture.

Test 4.—A limit charge will be determined within twenty-five grams by firing charges in their original wrappers, untamped, at a gallery temperature of 77°F., into a mixture of gas and air containing four per cent. of methane and ethane and twenty pounds of bituminous coal dust, to be arranged in the same manner as in test 2. This limit charge is to be repeated five times under the same conditions before being established.

Note.—At least two pounds of clay tamping will be used with slow-burning explosives.

In response to the above communication applications were received from manufacturers for the testing of numerous explosives. Of these explosives, the ones named in the following list have passed all the test requirements set forth, and will be termed permissible explosives.

Subject to the conditions named below, a permissible explosive is defined as an explosive that has passed gas and dust gallery tests Nos. 1, 2 and 3 as described above, and of which in test No. 4 1½ pounds (680 grams) of the explosive has been fired into the mixture there described without causing an ignition.

Provided:

1. That the explosive is in all respects similar to the sample submitted by the manufacturer for test.

2. That double-strength detonators are used of not less strength than 1 gram charge consisting by weight of 90 parts of mercury fulminate and 10 parts of potassium chlorate (or its equivalent), except for the explosive "Masurite M. L. F.," for which the detonator shall be of not less strength than 1½ grams charge.

3. That the explosive, if in a frozen condition, shall be thoroughly thawed in a safe and suitable manner before use.

4. That the amount used in practice does not exceed 1½ pounds (680 grams) properly tamped.

The above partial list includes the permissible explosives that have passed these tests prior to May 15, 1909. The announcement of the passing of like tests by other explosives will be made public immediately after the completion of the tests for such explosives.

A description of the method followed in making these and the many additional tests to which each explosive is subjected, together with the full data obtained in each case, will be published by the Survey at an early date.

NOTES AND SUGGESTIONS

It may be wise to point out in this connection certain differences between the permissible explosives as a class and the black powders now so generally used in coal mining, as follows:

(*a*) With equal quantities of each, the flame of the black powder is more than three times as long and has a duration three thousand to more than four thousand times that of one of the permissible explosives, also the rate of explosion is slower.

(*b*) The permissible explosives are one and one-fourth to one and three-fourths times as strong and are said, if properly used, to do twice the work of black powder in bringing down coal; hence only half the quantity need be used.

(*c*) With 1 pound of a permissible explosive or 2 pounds of black powder, the quantity of noxious gases given off from a shot averages approximately the same, the quantity from the black powder being less than from some of the permissible explosives and slightly greater than from others. The time elapsing after firing before the miner returns to the working face or fires another shot should not be less for permissible explosives than for black powder.

The use of permissible explosives should be considered as supplemental to and not as a substitute for other safety precautions in mines where gas or inflammable coal dust is present under conditions indicative of danger. As stated above, they should be used with strong detonators; and the charge used in practice should not exceed 1½ pounds, and in many cases need not exceed 1 pound.

Inasmuch as no explosive manufactured for use in mining is flameless, and as no such explosive is entirely safe under all the variable mining conditions, the use of the terms "flameless" and "safety" as applied to explosives is likely to be misunderstood, may endanger human life, and should be discouraged.

LIST OF PERMISSIBLE EXPLOSIVES

Aetna coal powder A, Aetna Powder Co., Chicago, Ill.
Aetna coal powder AA, Aetna Powder Co., Chicago, Ill.
Aetna coal powder B, Aetna Powder Co., Chicago, Ill.
Aetna coal powder C, Aetna Powder Co., Chicago, Ill.
Bituminite No. 1, Jefferson Powder Co., Birmingham, Ala.
Black Diamond No. 3, Illinois Powder Manufacturing Co., St. Louis, Mo.
Black Diamond, No. 4, Illinois Powder Manufacturing Co., St. Louis, Mo.
Carbonite No. 1, E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Carbonite No. 2, E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Carbonite No. 3, E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Carbonite No. 1-L. F., E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Carbonite No. 2-L.F., E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Coalite No. 1, Potts Powder Co., New York City.
Coalite No. 2-D, Potts Powder Co., New York City.
Coal special No. 1, Keystone Powder Co., Emporium, Pa.
Coal special No. 2, Keystone Powder Co., Emporium, Pa.
Coal special No. 3-B, Keystone Powder Co., Emporium, Pa.
Coal special No. 3-C, Keystone Powder Co., Emporium, Pa.

Collier dynamite No. 2, Sinnamahoning Powder Manufacturing Co., Emporium, Pa.
Collier dynamite No. 4, Sinnamahoning Powder Manufacturing Co., Emporium, Pa.
Collier dynamite No. 5, Sinnamahoning Powder Manufacturing Co., Emporium, Pa.
Eureka No. 2-L. F., G. R. McAbee Powder and Oil Co., Pittsburg, Pa.
Giant A low-flame dynamite, Giant Powder Co. (Con.), Giant, Cal.
Giant B low-flame dynamite, Giant Powder Co. (Con.), Giant, Cal.
Giant C low-flame dynamite, Giant Powder Co. (Con.), Giant, Cal.
Masurite M. L. F., Masurite Explosives Co., Sharon, Pa.
Meteor dynamite, E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Mine-ite A, Burton Powder Co., Pittsburg, Pa.
Mine-ite B, Burton Powder Co., Pittsburg, Pa.
Monobel, E. I. DuPont de Nemours Powder Co., Wilmington, Del.
Stratite Extra, Emporium Powder Manufacturing Co., Emporium, Pa.
Titanite No. 3-P, Waclark Titanite Explosive Co., Corry, Pa.
Trojan coal powder A, Trojan Powder Co., Allentown, Pa.
Tunnelite No. 5, G. R. McAbee Powder and Oil Co., Pittsburg, Pa.
Tunnelite No. 6, G. R. McAbee Powder and Oil Co., Pittsburg, Pa.
Tunnelite No. 6-L. F., G. R. McAbee Powder and Oil Co., Pittsburg, Pa.
Tunnelite No. 7, G. R. McAbee Powder and Oil Co., Pittsburg. Pa.
Tunnelite No. 8, G. R. McAbee Powder and Oil Co., Pittsburg, Pa.
Tunnelite No. 8-L F., McAbee Powder and Oil Co., Pittsburg, Pa.

SAFETY LAMPS

As one of the protective features of coal mining safety lamps have come into very general use in Pennsylvania in mines generating explosive gas. The table herewith shows the number and names of lamps in each district in the Bituminous region.

NUMBER AND NAMES OF SAFETY LAMPS IN USE

Districts	Wolf	Clanny	Seipple	Schenk	Davy	Davis	Ashworth—Hepplewhite—Gray	Total
First,	2,942	35		200				3,177
Second,	1,546	1,260						2,806
Third,*								
Fourth,	75	290			20			385
Fifth,	2,768	1,684	478					4,930
Sixth,*								
Seventh,	80	164		12	11		1	268
Eighth,*								
Ninth,	3,651	1,747	518					5,916
Tenth,					8			8
Eleventh,	900	3,001			2			3,903
Twelfth,	170							170
Thirteenth,	1,060	15	160					1,235
Fourteenth,	822	7			1			830
Fifteenth,	30	26			2		1	59
Sixteenth,	5,682	12	50		1			5,745
Seventeenth,	611	137	12		4	6		770
Eighteenth,*								
Nineteenth,	3,778	135						3,913
Twentieth,	327	1			2			330
Twenty-first,	740	232						972
Totals,	24,912	8,746	1,218	212	51	6	2	35,417

GENERAL IMPROVEMENTS IN THE MINES

At the meeting before the Committee on Mines and Mining at the time the proposed Bituminous Mine Law was under consideration during the last session of the Legislature, the operators objected to certain sections of the bill directly affecting their own mines. Some of them objected to the amount of ventilation required, some to the provisions relating to the conducting of the air currents to the working faces by means of incombustible materials for cut-throughs, others to the provisions requiring additional shafts at or near the face of the workings for ventilation and escapeways in case of danger, and still others to the requirements regarding the watering of the dust. In fact, each operator objected to most everything that in his opinion interfered with his own mines.

In spite of this attitude to the bill, the operators have during 1909 sunk at or near the face of the workings 25 shafts, ranging from 100 to 350 feet in depth, to increase the ventilation and also afford an

*None in use.

escapeway in case of danger. There were also erected of incombustible material 390 overcasts to do away with doors on entries, and to conduct a sufficient quantity of air to faces of entries 4,494 cut-throughs between intake and return airways were permanently closed with incombustible material. About half of these were old cut-throughs that had replaced wooden stoppings. To increase the quantity of air 20 ventilating fans, ranging in diameter from 10 to 26 feet, were erected in the larger mines. In the small non-gaseous mines 23 fans were erected of smaller diameter. To increase the volume of air at the face of the workings 10 old mines enlarged their intake airways to such a size that the air is now of sufficient volume to keep the mines safe at all times, when properly guarded.

Although no permissible explosives have as yet been used in the Third and Eighteenth Districts, they are used to a considerable extent in the mines of the Fifth, Ninth, Eleventh, Fifteenth and Sixteenth Districts. In the other districts they are used in but very few mines. The total number of mines using them is 312, and it may be confidently expected that they will ultimately be adopted in all mines generating gas and, in fact, in all the bituminous mines of the State.

Some of the operators also objected to the four and five entry systems as provided in the proposed law, and they vigorously protested against being compelled to turn rooms only on one side when two entries were driven instead of having rooms turned from each entry, as is being done in many mines. In spite of the strenuous objections to the adoption of the five-main entry system, it may be stated here that in many of the extensive mines there are at the present time five, six and even seven main entries. Herewith are given descriptions of the four and five entry systems:

FOUR ENTRY SYSTEM

The main hoisting shaft is the intake. The main headings are driven on the butt and are four in number, the two inside ones being intake air courses, one of which is a haulage road and the other a travelling way. The outside headings are return air courses, both going directly to the bottom of the air shaft, where they unite.

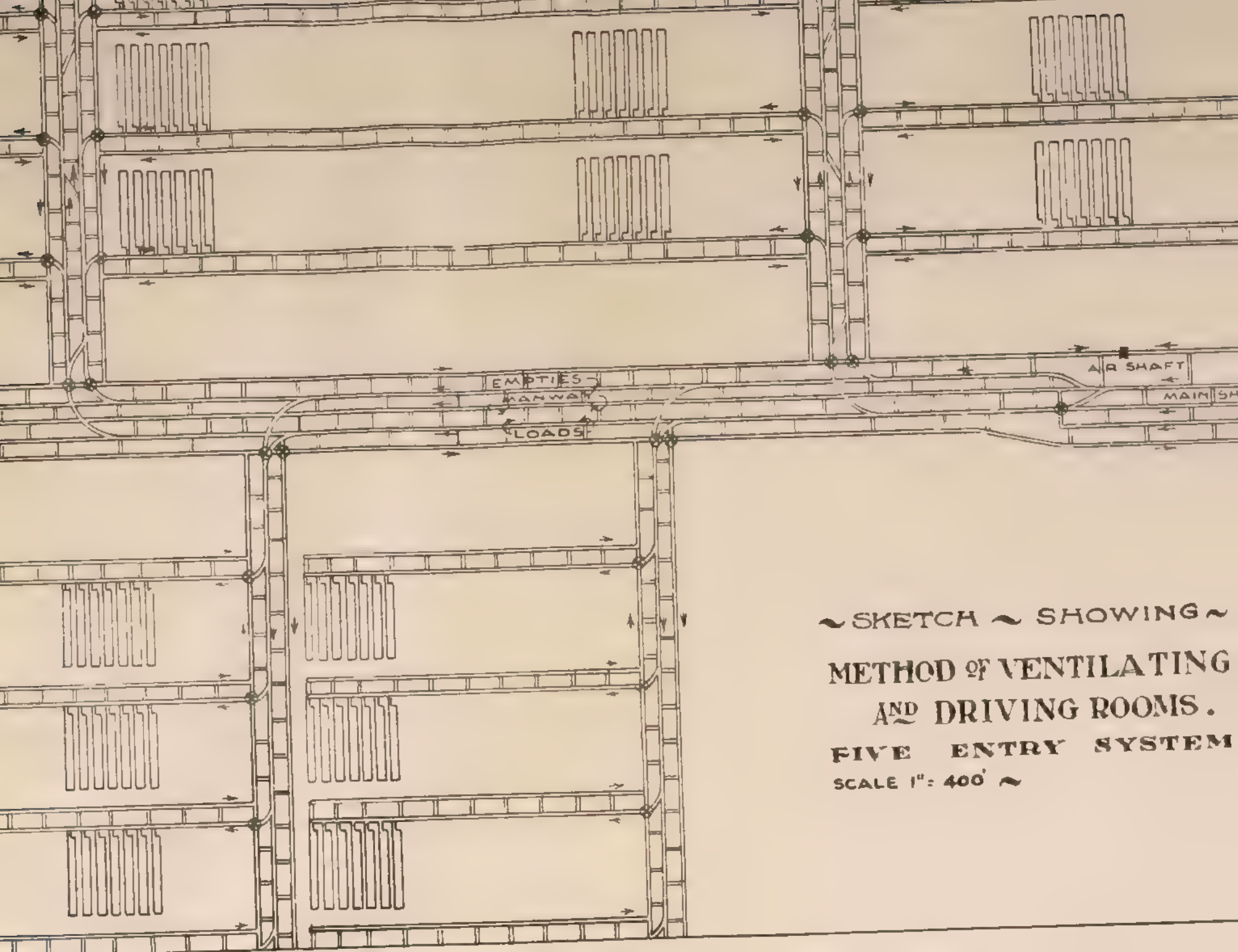
Off of these main headings, at stated intervals, are turned in series of three, to the right and the left, main face headings, two of which are intake air courses and one a return. In one of the intakes the hauling is done. From the face headings, room headings or butts are driven in pairs, one of them being used for a return, the other for driving rooms off.

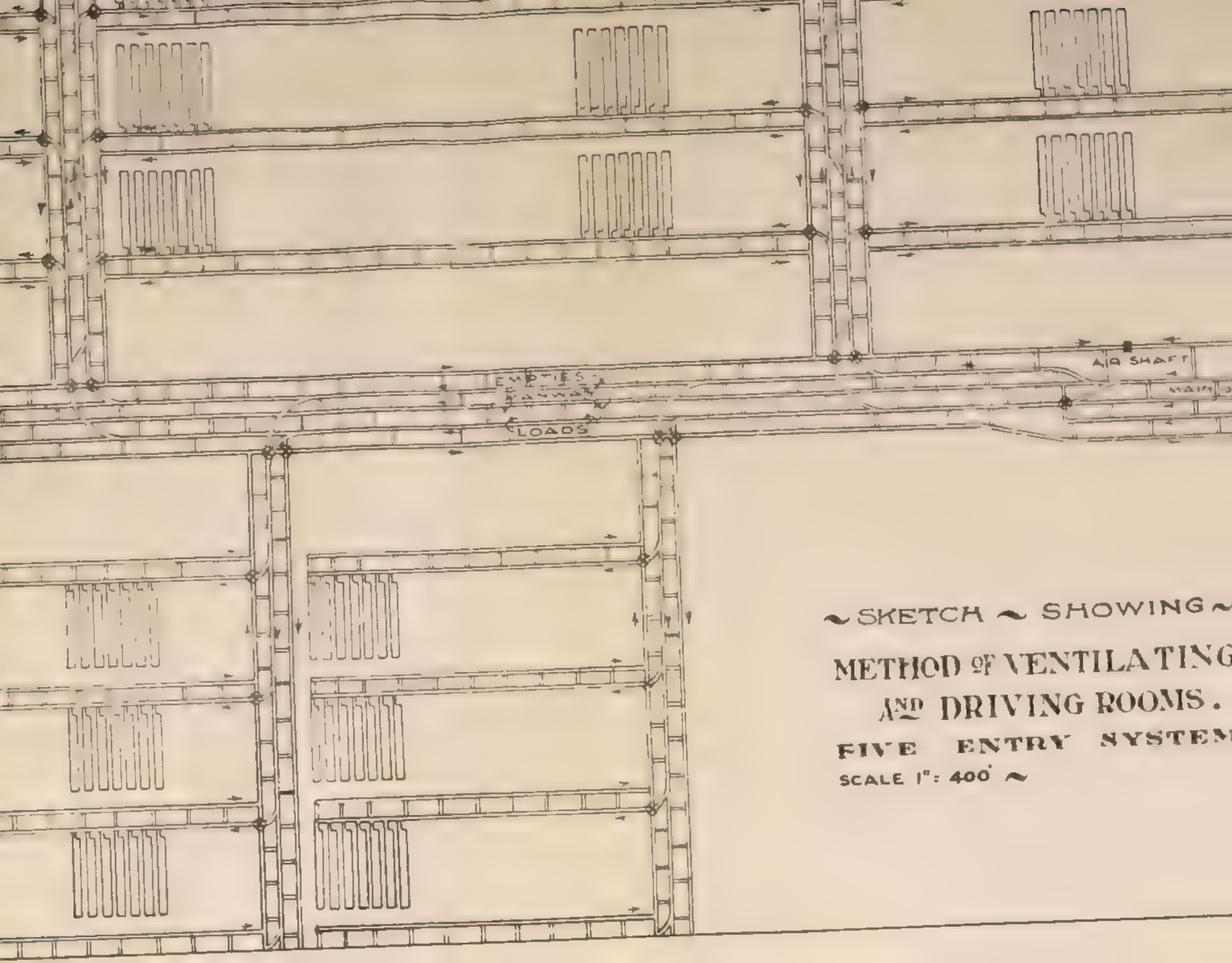
No doors are used in the mine, an overcast being built at each butt heading. All hauling roads are intake airways; the air is not interfered with by moving trips, and the rooms are driven on only one side of the butt headings, so that there will be no necessity for having men working in an air current that has passed over any gob or old workings, and there is an independent air course for a manway, on which no hauling is done.

FIVE ENTRY SYSTEM

The main hoisting shaft is the intake. The main headings on the butt of the coal are five in number, the three inside headings are intake air courses and are used, one for hauling loads, one for hauling empties and the third for a travelling way; the outside headings are return air courses, both going to the bottom of the air shaft where the air is split.

Off of these main headings at stated intervals are turned to the right and left main face headings, in series of three or four headings, according to the intention of developing a section on one side or both sides. Where three headings are driven, the butts are turned off on one side only in pairs, the rooms being driven from one of these butts to the raise; the other being simply an air course. Two of the main face headings are intakes, one of which is a hauling road, the other a travelling way. The third face heading is a return air course.


EMPTIES
MANWAY
LOADS
AIR SHAFT
MAIN SH
~ SKETCH ~ SHOWING ~
METHOD OF VENTILATING
AND DRIVING ROOMS.
FIVE ENTRY SYSTEM
SCALE 1" = 400' ~


EMPTIES
LOADS
AIR SHAFT
MAIN
~ SKETCH ~ SHOWING ~
METHOD OF VENTILATING
AND DRIVING ROOMS.
FIVE ENTRY SYSTEM
SCALE 1" = 400' ~

Where a section is developed on both sides of the face heading, four face headings are driven, the inside headings being used for haulage and as intakes, the outside for return air courses.

No doors are used in the mine, an overcast being built at each butt heading. All haulage roads are intake airways; the air is not interfered with by moving trips, and the rooms are driven on only one side of the butt headings, so that there will be no necessity for having men working in an air current that has passed over any gob or old working.

These sketches, while not perfect, perhaps, are submitted to the intelligent superintendents and managers. They all know the great importance of doing away with doors, especially in gaseous mines, where a door left open may cause a disastrous explosion, even in a well conducted mine.

It may be said in this connection that the mines of this State have been vastly improved since the disasters of 1907. Operators, managers and superintendents are now anxious to confer with the Inspectors and the Department on all matters pertaining to the safety of the employes and the protection of property. With an up-to-date mine law this State can be made to produce coal with a minimum loss of human life.

WORK OF THE MINE INSPECTORS

The work of the Inspectors has been very satisfactory during the year. They have made every effort to secure strict compliance with the mining laws, and the result has been such as to commend their work to the Chief of the Department.

During the year they spent 2,985 days inspecting mines; 12 days inspecting machinery and plants; 306 days investigating accidents; 41 days attending inquests; 1,153 days at office work; 9 days inspecting maps and plans; 550 days in consultation on mining matters; 86 days in consultation on legal matters; 369 days traveling on duty; 116 days on sick list; 96 days legal holidays; 113 days attending court; 14 days attending funerals; 6 days at mine fires; 35 days on vacation; 100 days on Mine Inspectors Examining Boards; 277 days on Mine Foremen Examining Boards; 7 days absent on account of deaths in families; 70 days sickness in families; 3 days on private business; 20 days investigating the Orenda explosion; a total of 6,369 days, or about 313 days a year for each Inspector.

CHILD LABOR

So much concern is manifested in the welfare of the children who have entered the ranks of the bread-winners, and so much is said on the subject through the press and on the platform, that any change in the conditions affecting this large and constantly increasing class of citizens is bound to possess a certain amount of interest. The question of child labor must be approached from two sides in order to arrive at a fair conclusion regarding it. On the one side stands the parent, who desires that his child shall aid in the support

of the family household, and insists upon placing him at work regardless, sometimes, of the privileges and opportunities that are his inherent right. On the other side stands the leader in the cause of child protection, vigilant, aggressive, but sometimes over-zealous and impractical. To steer a course safely between these opposing forces of self-interest and philanthropic interest is a task that requires some diplomacy and not a little tact. In our treatment of the subject we have always endeavored to keep this question of opposing forces in plain view. However, as the years go by, the pathway of the youthful worker is being gradually freed from the hardships of long hours, unsanitary conditions and inadequate wages, and to-day he works under conditions of safety, convenience and comfort undreamed of a generation ago.

This Department has direct interest only in the youthful workers in and about the coal mines of the State, and it is a matter of gratification to be able to say that the conditions surrounding this class of workers have greatly improved in the last decade. In addition to the more intelligent and efficient operation of the mines and the consequent betterment in the physical conditions, there has been a gradual decrease in the hours of labor and an increase in the amount of wages paid. The greatest gain, however, has been brought about by the wise and humane legislation regulating the ages of the workers. Years ago little children not more than eight or nine years of age were allowed, and in many cases obliged, to work about the mines, but owing to the enlightened public sentiment that has always opposed the employment of children of tender years in industrial work, and to the more thoughtful and sensible attitude of the operators, the age limit has from year to year been increased until to-day no child under fourteen years of age can be employed at any work whatever about the mines, and as a rule few children under sixteen years of age are employed inside the mines.

The Act of the General Assembly passed in 1909 fixes the age limit of the boys in and about the mines at fourteen years, and requires of them a certificate from an accredited school official showing them to be familiar enough with the English language to read intelligently portions of the mine law and to write legibly simple sentences.

The Department, while always interested in the welfare of the children employes, has never been required by law to exercise any supervision over them. This latest enactment, however, provides as follows:

"It shall be the duty of the Chief of the Department of Mines to carry out the provisions of this act, and prosecutions for violations thereof shall be instituted by the Chief of the Department of Mines."

The Inspectors throughout the State have, therefore, been instructed to see that the provisions of the law are strictly complied with and that violations thereof are dealt with in a most summary manner. All the superintendents in both the Anthracite and Bituminous regions were written to as follows:

"Dear Sir: I enclose herewith two copies of an act regulating the employment of minors in the coal mines of Pennsylvania after January 1, 1910.

You are requested to see that the act is complied with. The Inspector on his tour will expect and demand to see that you have a certificate for each employe inside and outside of the mines, as required by this act. It is the opinion of the Department of Mines that each employe between the ages of fourteen and sixteen years should file a certificate, in accordance with this act, on or before January 1, 1910.

Your attention is called to Section VII of the act, which reads as follows:

'Section VII. Any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and, upon conviction, shall be punished, for a first offense, by a fine of not less than ten dollars or more than twenty-five dollars, or ten days imprisonment in the county jail, or either or both, at the discretion of the court; and, for a second offense, shall be punished by a fine of not more than fifty dollars, and ninety days imprisonment in a county jail, or either or both, at the discretion of the court.

It shall be the duty of the *Chief of the Department of Mines* to carry out the provisions of this act, and prosecutions for violations thereof shall be instituted by the *Chief of the Department of Mines.*'

Upon report from the Inspector of any violation of this act, the Chief of the Department of Mines will instruct the Inspector to prosecute the person guilty of the offense.

Kindly acknowledge receipt of this letter and copies of the law."

For many years we have advocated the adoption of an age limit similar to that incorporated in the Act of 1909, and as we think a sensible solution has been reached by this Act, we shall make every effort to see that its provisions are complied with.

Our interpretation of the Act of 1909 was that it repealed all previous legislation on the subject of child labor in and about the coal mines, both anthracite and bituminous, and made the age for both inside and outside work fourteen years. The officials of the Pennsylvania Child Labor Association, who were active in the passage of the measure, took a different view and insisted that the Act of 1905, making the age limit for inside work sixteen years, was still in force. The dispute in the matter revolved around the definition of the word "colliery." The Act of 1909 reads as follows:

"No minor under the age of fourteen years shall be employed, permitted, or suffered to work in, about or for any * * anthracite colliery or breaker."

The Department contended that the word "colliery" covers every operation and work, both under and above ground, used or to be used for the purpose of mining and preparing coal. This definition is taken from Article XVIII of the Act of June 2, 1891. In further support of our position on this question we give the definition of the word "colliery" as found in the Century Dictionary, "A place where coal is dug; a coal mine or pit with the requisite apparatus for working it;" also as found in Webster's Dictionary, "A place where coal is dug; a coal mine and the buildings, and so forth, belonging to it." In addition to these authorities, it may be stated that among the anthracite operators the term "colliery" is a comprehensive term, including all the workings of the operation.

The Child Labor Association in its contention held to the opinion that the word "colliery" was used in contra-distinction to the word "mine," and, therefore, practically covered the outside workings only.

Upon reference of the subject to the Attorney General of the State, the Department received from him an opinion upholding its interpretation of the Act. After reciting parts of the Acts of 1905 and 1909, and citing several legal cases in which the term "colliery" is defined, he gives his opinion as follows:

"This Department is therefore reluctantly forced to the opinion, and I so advise you, that the act of 1909 repeals in toto the act of 1905, notwithstanding the unfortunate effect of reducing the age at which minors may work in an anthracite coal mine from sixteen to fourteen years."

The correspondence appended may be of interest as indicating the position assumed by the Department and what it is trying to do to make effective the present just and beneficent legislation on the subject.

On the 30th of November copies of the new Act were sent to all the Inspectors, and they were instructed as follows:

"Dear Sir: On your inspection trips after January 1, 1910, you are requested to see that all companies in your district have complied with the provisions of this act; and you are hereby authorized to prosecute according to law any foreman or any other person violating its provisions."

On the 27th of December further instructions were sent to all the Inspectors as follows:

"Dear Sir: Your attention is again called to the act, entitled 'An act to provide for the health and safety of minors in bituminous coal mines and anthracite collieries or breakers,' which will go into effect January 1, 1910.

By the provisions of this act, the employment age of minors inside and outside the mines is made fourteen years.

'Section 5. The employment certificate provided by this act for the use of a minor between fourteen and sixteen years of age shall be in the following form:—

This certifies that (name and residence of minor) is aged ..... years ..... months ..... days; whose complexion is ....., hair is ....., and eyes are .....; is able to read and write the English language intelligently. * * * *.'

'Section 7. Any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor. * * * *.'

It shall be the duty of the Chief of the Department of Mines to carry out the provisions of this act, and prosecutions for violations thereof shall be instituted by the Chief of the Department of Mines.'

Inasmuch as the Chief of the Department of Mines is the only person authorized to institute prosecutions for violations of this act, you are hereby directed as follows:

> While on your tours of inspection inside and outside the mines, you will interview any employe who, in your opinion, is between the ages of fourteen and sixteen years. Give the person a copy of the Mine Law and see if he can read intelligently; then give him your note book and ask him to write therein what you may dictate to him, giving a few plain, every-day sentences. If he fails in either the reading or the writing of the English language intelligently, you will proceed to prosecute the person who gave him a certificate, as provided for in section seven. The Chief of the Department of Mines will hold you, individually, responsible for any violations of this act in your inspection district.

Very truly yours,
JAMES E. RODERICK,
Chief of Department of Mines."

Information having been received from one of the Inspectors in the Anthracite region that some of the children in the mines in his district were in possession of age certificates that had been issued to their parents by squires or justices of the peace, and the Inspector having asked for instructions regarding their recognition, he was advised as follows:

"Do not accept any such certificates as you refer to as evidence of boys' ages. This is a way of evading the provisions of the present law that was resorted to in the past to evade the provisions of the old law. It has been conclusively shown that the certificates of parents are valueless, as they (the parents) frequently state that a boy of twelve is sixteen years of age, if that is necessary to obtain employment.

You will accept no certificates from boys of uncertain age, except baptismal certificates. If they cannot be had in this country, you can allow sixty days' time in which to procure them.

Prosecute any foreman who does not have the proper certificates in his possession or who does not promise to procure them, as provided for by the act of 1909. You will have the foremen suspend all boys that have not deposited certificates as demanded by law."

The Act of 1909 reads as follows:

AN ACT

To provide for the health and safety of minors in bituminous coal mines and anthracite collieries or breakers, by regulating the ages at which said minors may be employed, their hours of employment, and to prescribe rules for the obtaining of employment certificates, and providing penalties for violation of the provisions thereof.

Section 1. Be it enacted, &c., That from and after the passage of this act, no minor under the age of fourteen years shall be employed, permitted, or suffered to work, in, about, or for any bituminous coal-mine or anthracite colliery or breaker.

Section 2. That no minor under the age of sixteen years shall be employed, permitted, or suffered to work, in or about or for any establishment or industry named in section one of this act, for a longer period than ten hours in any one day, except when a different apportionment of the hours of labor is made for the sole purpose of making a shorter workday for one day in the week; nor shall a less period than forty-five minutes be allowed for the midday meal; and in no case shall the hours of labor exceed fifty-eight in any one week. No minor under the age of sixteen years shall be employed or permitted to work between the hours of nine post meridian and six antemeridian.

Section 3. That no minor under the age of sixteen years shall be employed in or about or for any establishment or industry named in section one of this act, unless the employer of said minor procures and keeps on file and accessible to the mine inspector, the employment certificate as hereinafter provided, issued to said minor, and keeps two complete lists of all minors under the age of sixteen years employed in or for his or her establishment; one of said lists to be kept on file in the office of the employer, and one to be conspicuously posted in each of the several departments in or for which minors are employed. Said employment certificate, when issued, shall be the property of the minor named therein, who shall be entitled to a surrender of said certificate to him or her by the employer whenever said minor shall leave the service of any employer holding said certificate.

Section 4. The employment certificates required by the provisions of this act shall be issued as follows:—

In school districts having a district superintendent or supervising principal, by such superintendent or supervising principal; in school districts having no superintendent or supervising principal, but having one or more principals of schools, by such principals, each principal to issue the certificate to minors residing within the territory belonging to the school over which he has supervision; in school districts, or parts of districts, having no district superintendent or principal, by the secretary of the board of school directors for that district: Provided, That any district superintendent, supervising principal of schools, or secretary of the board of school directors, hereby directed to issue such certificates, may authorize and deputize, in writing, such persons as they may see proper, to act in their place and stead for the purpose of issuing such certificates. Any of the hereinbefore mentioned officials, authorized to issue employment certificates, before doing so shall demand, and if possible obtain, a birth certificate, or baptismal certificate, or passport, or any other

official or religious record of the minor's age, or duly attested transcript thereof; or, in the event that none of these is obtainable, may accept, in lieu thereof, the record age as given on the register of a school the minor has attended; or, in the absence of such record, may accept the affidavit of the minor's parent, guardian, or other person, which affidavit he is empowered to administer: Provided, That the powers and duties conferred by this section on the superintendents, supervising principals, principal, or secretary of a board of school directors, be and the same are conferred upon superintendents, supervising principals, principal, teachers, or secretaries of any private academy, parochial or denominational schools, in all cases where the applicant for an employment certificate is, or recently has been, an attendant pupil in a private academy, parochial or denominational school, and is not a pupil in a public school: And provided further, That whenever in any school district an employment certificate is issued by any persons other than the public school official hereinbefore directed to issue such certificates in said district, said persons shall, on or before the third day of each month, file with the aforementioned public school official, in said district, true copies of all employment certificates so issued.

Section 5. The employment certificate provided by this act for the use of a minor between fourteen and sixteen years of age shall be in the following form:—

This certifies that (name and residence of minor) is aged ..... years ..... months ..... days; whose complexion is ..... hair is ....., and eyes are .....; is able to read and write the English language intelligently, and may be employed at labor in any bituminous coal-mine or anthracite colliery or breaker.

This certificate is a legal warrant for the employment of the minor hereon, in any of the above-named establishments and industries, under the provisions of an act approved ..... one thousand nine hundred and nine.

(Signature of person who issued certificate, official title and official address.)

(Signature of minor to whom issued.) ..... (Date.)

Section 6. The blank employment certificates shall be prepared by the Superintendent of Public Instruction, in accordance with the form prescribed in this act; the same to be printed in accordance with the laws regulating printing and binding, under the supervision of the Superintendent of Public Printing and Binding. The Superintendent of Public Instruction shall also supply the aforesaid certificates to all persons authorized to issue the same.

Section 7. Any person or persons violating any of the provisions of this act shall be deemed guilty of a misdemeanor, and, upon conviction, shall be punished, for a first offense, by a fine of not less than ten dollars or more than twenty-five dollars, or ten days imprisonment in the county jail, or either or both, at the discretion of the court; and, for a second offense, shall be punished by a fine of not more than fifty dollars, and ninety days imprisonment in a county jail, or either or both, at the discretion of the court.

It shall be the duty of the Chief of the Department of Mines to carry out the provisions of this act, and prosecutions for violations thereof shall be instituted by the Chief of the Department of Mines.

Section 8. All fines imposed and collected for any violation of this act shall be forwarded to the Chief of the Department of Mines, who shall pay the same into the office of the State Treasurer, for the use of the Commonwealth.

Section 9. This act shall be in force and effect on and after January first, one thousand nine hundred and ten.

Section 10. All acts or parts of acts inconsistent with any of the provisions of this act, be and the same are hereby repealed.

Approved—The 1st day of May, A. D. 1909.

PENSIONS FOR WIDOWS AND ORPHANS

The question of rendering financial assistance to widows and orphans who are deprived of the support of husbands and fathers by fatal accidents in our coal mines was dealt with pretty thoroughly in the report of this Department for 1907. Renewed attention has recently been called to the question by the disastrous explosions of the past year, and in a speech delivered a short time ago Mr. John Mitchell gave his views as follows:

"There was a time when criminal law was a matter of private settlement, when a man could atone for the murder of a fellowman by paying a sum of money. Conditions have changed since then, but under the present laws of liability and negligence injured workingmen or their heirs are compelled to prove affirmatively that the accident was not due to the workingman's negligence.

In the matter of cost, the present system governing accidents is wasteful alike to the employer and to the employe. In Illinois there are 70,841 coal miners, earning an average annual wage of $500, or a total of $35,420,500. In 1908 alone there were 183 fatal accidents. Had the employers paid the dependents of the killed workingmen an amount equal to three years' wages, as under the English law, it would have cost them $274,500. There were also 819 non-fatal accidents. Had these men been paid half wages at $6 a week during the period of their disability, as in England, it would have cost $24,570.

Instead of this sum, $299,070, however, it cost the employers under the present liability system $354,505, owing to the expenses of insuring the workingmen and litigation over damages. We want compensation for injuries, instead of a useless expenditure of money in liability insurance and litigation."

If Mr. Mitchell's figures are correct, it is evident that it would be greatly to the advantage of the American operator to secure some philanthropic legislation like the English law. The instance he cites in the case of the Illinois accident is a convincing argument in favor of a change in our methods of rendering assistance to the sufferers from mine accidents. The employers in Illinois paid finally a sum said to be $354,505 during the year 1908, while under the English system the amount would have been but $299,070 and the results obtained would have been infinitely more satisfactory.

The 70,841 miners in Illinois earn an average annual wage of $500, or a total of $35,420,500. If out of this vast sum they were to contribute $299,070 as a protection to widows and a weekly stipend to the injured, it would take only $4.23 of their individual earnings or less than 36 cents a month.

Or, if they were to donate one per cent. of their annual earnings, the sum would be $354,205, and if the operators were to add an equal amount there would be a fund of $708,410, which would give each widow $500 a year for six years, and each injured person $9 a week

during the term of his disability. If the total amount of $708,110 were paid by the operators alone, it would mean only one and four-tenths cents per ton additional cost on a production of 50,000,000.

If a law cannot be passed to tax the production of coal for the purpose of affording relief to the sufferers from mine accidents, it might be well to have a law compelling the operators to pay the dependent persons, as is done in England.

This question is a most vital one, and one that appeals very strongly to all persons who are familiar with the conditions under which the miner pursues his vocation.

In the report of this Department for the year 1907 a carefully worked-out plan was submitted by which a tax of three-fourths of a cent a ton on bituminous coal and one and one-half cents a ton on anthracite coal would provide a fund sufficient to cover the needs of the widows and orphans and also care for the injured. A portion of the article is reproduced herewith, owing to the unusual attention that has lately been directed to this subject:

"In the Anthracite region, with an annual taxable production of 62,000,000 tons, yielding a tax of one and one-half cents a ton, the fund would be $930,000. The loss of life in the Anthracite mines averages about 573 a year, leaving about 322 widows and 770 orphans. In the Bituminous region from which an annual taxable production of at least 100,000,000 tons may be expected during the next hundred years, the fund at three-quarters of a cent a ton would be about $750,000. The loss of life in the Bituminous mines averages about 475 a year, leaving about 252 widows and 546 orphans. Each widow should receive $100 to defray the funeral expenses and a weekly benefit of $3 during widowhood, and each child under fourteen years of age should receive a weekly benefit of $2.

To care for persons injured in the mines, a portion of the fund in each region, approximately $100,000, could be distributed annually. During disablement each person should receive an amount equal to one-half his daily or weekly earnings, the benefit not to become operative until one week from the date of injury and to continue until he is able to resume work; but in no case should the benefit continue for more than one year. The annual expense entailed by the plan herewith proposed is shown in the following table."

RELIEF FUND FOR WIDOWS AND ORPHANS AND DISABLED EMPLOYES

Bituminous Region of Pennsylvania

Annual Contributions by Coal Companies, $750,000.00.
(Three-fourths of a cent a ton on an estimated production of 100,000,000 tons.)

	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
Contribution,	$750,000 00	$750,000 00	$750,000 00	$750,000 000	$750,000 00	$750,000 00	$750,000 00
Balance,		496,404 00	923,432 16	1,285,173 45	1,585,880 39	1,829,975 61	2,022,058 63
Interest,		19,856 16	36,937 29	51,406 94	63,435 22	73,199 02	80,882 34
Principal,	$750,000 00	$1,266,260 16	$1,710,369 45	$2,086,580 39	$2,399,315 61	$2,653,174 63	$2,852,940 97
Paid out,	253,596 00	342,828 00	425,196 00	500,700 00	569,340 00	631,116 00	686,028 00
Balance,	$496,404 00	$923,432 16	$1,285,173 45	$1,585,880 39	$1,829,975 61	$2,022,058 63	$2,166,912 97

	Eighth year	Ninth year	Tenth year	Eleventh year	Twelfth year	Thirteenth year	Fourteenth year
Contribution,	$750,000 00	$750,000 00	$750,000 00	$750,000 00	$750,000 00	$750,000 00	$750,000 00
Balance,	2,166,912 97	2,269,513 49	2,335,034 03	2,368,855 39	2,376,573 60	2,364,008 54	2,337,212 88
Interest,	86,676 52	90,780 54	93,401 36	94,754 21	95,062 94	94,560 34	93,488 52
Principal,	$3,003,589 49	$3,110,294 03	$3,178,435 39	$3,213,609 60	$3,221,636 54	$3,208,568 88	$3,180,701 40
Paid out,	734,076 00	775,260 00	809,580 00	837,036 00	857,628 00	871,356 00	878,220 00
Balance,	$2,269,513 49	$2,335,034 03	$2,368,855 39	$2,376,573 60	$2,364,008 54	$2,337,212 88	$2,302,481 40

RELIEF FUND FOR WIDOWS AND ORPHANS AND DISABLED EMPLOYES

Anthracite Region of Pennsylvania

Annual Contributions by Coal Companies, $930,000.00.
(One and a half cents on an estimated production of 62,000,000 tons.)

	First year	Second year	Third year	Fourth year	Fifth year	Sixth year	Seventh year
Contribution,	$930,000 00	$930,000 00	$930,000 00	930,000 00	$930,000 00	$930,000 00	$930,000 00
Balance,		632,188 00	1,168,659 52	614,893 90	1,976,589 66	2,259,673 25	2,470,308 18
Interest,		25,287 52	46,746 38	64,595 76	70,063 59	90,386 93	98,812 33
Principal,	$930,000 00	$1,587,475 52	$2,145,405 90	309,489 66	$2,985,653 25	$3,280,060 18	$3,499,120 51
Paid out	297,812 00	418,816 00	530,512 00	332,900 00	725,980 00	809,752 00	884,216 00
Balance,	$632,188 00	$1,168,659 52	$1,614,893 90	976,589 66	$2,259,673 25	$2,470,308 18	$2,614,904 51

	Eighth year	Ninth year	Tenth year	Eleventh year	Twelfth year	Thirteenth year	Fourteenth year
Contribution,	$930,000 00	$930,000 00	$930,000 00	$930,000 00	$930,000 00	$930,000 00	$930,000 00
Balance,	2,614,904 51	2,700,128 69	2,732,913 84	2,720,470 39	2,670,297 21	2,590,193 10	2,488,268 82
Interest,	104,596 18	108,005 15	109,316 55	108,818 82	106,811 89	103,607 72	99,530 75
Principal,	$3,649,500 69	$3,738,133 84	$3,722,230 39	$3,759,289 21	$3,707.109 10	$3,623,800 82	$3,517,799 57
Paid out,	949,372 00	1,005,220 00	1,051,760 00	1,088,992 00	1,116,916 00	1,135,532 00	1,144,840 00
Balance,	$2,700,128 69	$2,732,913 94	$2,720,470 39	$2,670,297 21	$2,590,193 10	$2,488,268 82	$2,372,959 57

REVIEW OF RECENT EXPLOSIONS OF GAS AND DUST

The coal mining industry of Pennsylvania has in recent years been marked by the most disastrous explosions in its history; 1902, 1904, 1907 and 1908 all have unenviable records for catastrophes of this kind.

In 1902 an explosion of gas occurred at the Rolling Mill mine by by which 112 persons lost their lives. This accident came as a shock to the mining officials, inspectors and the Department of Mines, as the mine was considered to be a safe one and was worked almost entirely with open lights. It, however, was evidently generating a dangerous quantity of gas at the time, and the explosion was due to the fact that the employes were using open lights in disobedience of the rules of the mine. requiring that where gas is found to exist in dangerous quantities locked safety lamps only shall be used. The inquest disclosed the fact that open lights were used against positive instructions.

In 1904 another most disastrous explosion occurred at the Harwick mine by which 177 lives were lost. This explosion was also a surprise to the officials, the Department and the public, as the inspector who had inspected the mine several months prior to the accident had reported it as a safe mine with only a trace of gas in a few of the entries. The testimony at the inquest, however, revealed a condition of affairs in the mine that could not have existed had the officials been competent and careful.

In 1907 there occurred two great disasters, one at the Naomi mine and one at the Darr mine, by which 34 and 239 persons, respectively, were killed. These mines were deemed comparatively safe mines by the mine officials and the inspectors, and were worked with open lights, except in a few entries where gas was being generated. In these entries locked safety lamps were used. The inspectors had never reported to the Department the existence of gas in these mines to any dangerous extent, and it is undoubtedly a fact that there was not enough explosive gas in either mine to cause more than a local explosion, which, while it might have killed or injured those in the immediate vicinity, would not have extended farther. The initial explosion of gas, however, in each instance, was carried by the coal dust in the air and on the roof and sides to every nook and corner of the mine, destroying the lives of all the employes.

In 1908 an explosion of gas and dust occurred at the Marianna mine by which 154 persons lost their lives. This mine had been pronounced safe by the inspector the day before and also on the day of the accident, and he had gone out of the mine only about a half hour before the explosion took place. The mine was worked exclusively with open lights, except in the Blanche entries where a small quantity of gas was being generated. Only one person escaped from this explosion and he was blown to a point near the foot of the shaft where the air was not poisonous enough to kill him. This was undoubtedly a dust explosion of the most violent type, and owing to the efficiency of the ventilation it was carried to all the entries in the mine.

There are many mines in the State in a dangerous condition owing to the accumulation of coal dust therein, the dust held in suspension in the air and the presence of small quantities of gas near to and at the faces of rooms and entries. In some mines there is probably one and a half or two per cent. of gas at or near the face of the workings, which the fire boss with the ordinary safety lamp cannot detect, and yet this gas is sufficient, in the event of a blown-out shot with dynamite or black powder or possibly with a permissible explosive, in the presence of coal dust, to bring disaster to all the persons in the mine. While this is to some extent an alarming state of affairs, the inspector is unfortunately unable to remedy matters by enforcing compliance with the ordinary rules of safety, because the law does not provide for such conditions.

No explosions of gas or dust occurred in any of the gaseous and dusty mines during 1909, a fact due no doubt to the careful supervision of the Inspectors, the unusual precautions taken by the managers, superintendents and foremen and the intelligent use of permissible explosives. With less skillful and careful supervision we might have been called upon to chronicle a repetition of the distressing disasters of previous years. It is a matter of regret to state in this connection that the leaders of the workingmen in and about Pittsburg are hardly deserving of commendation for the reason that they have at all times objected to the use of permissible explosives, giving as a cause for their attitude that permissible explosives reduce the wages of the miners about ten per cent. by breaking the coal. While this is a controversy that does not concern the Department of Mines, the Department is of the opinion that permissible explosives should be used and that the fight regarding wages should not enter into the question when the safety of the workers is concerned.

The record of the so-called safe mines is not so satisfactory. On January 25, 5 persons lost their lives by an explosion of gas and dust in Orenda No. 2 mine of the Merchants Coal Company, in Somerset county. On April 9, 7 persons were killed in Eureka No. 37 mine of the Berwind-White Coal Mining Company, near Windber, Cambria county, by an overcharge of dynamite that ignited the dust. Some of the men killed were 200 feet away from the holes blasted. It may be said here that not a particle of explosive gas was ever detected in this mine before or after the explosion, and all the workmen in rooms and entries used naked lights. On June 23, 21 persons lost their lives by an explosion of dust in Lackawanna No. 4 mine of the Lackawanna Coal and Coke Company, at Wehrum, Indiana county. No gas had been detected in this mine for about eight years and all the people worked with open lights. This, again, was undoubtedly a dust explosion pure and simple. The next explosion in a non-gaseous mine occurred Sunday, October 31, in Franklin No. 2 mine of the Cambria Steel Company, in Cambria county, whereby 16 persons lost their lives. Every person in this mine worked with an open light. The accident was caused by a blown-out shot in an entry where the vein was only one foot in height and the coal was blasted from the solid. This method of mining is always condemned, but it seems that it was practiced with or without the knowledge of the mine foreman and superintendent. This was another explosion of

coal dust without any gas. More extended accounts of these explosions follow this article.

It may with propriety be stated that some of the 49 lives lost in the explosions just referred to might have been spared had the Legislature enacted into a law the Bituminous Mine Bill submitted to it during the session of 1909. The more stringent rules and regulations provided therein for the government of the mines would, no doubt, have resulted in the enforcement of greater discipline and more care on the part of both officials and employes, and the liability to accident would therefore have been greatly reduced.

The accidents in the non-gaseous mines of Central Pennsylvania came very unexpectedly, yet they prove the contention of the Department that coal dust is a menace to life in nearly all the coal mines of this State. Tests should be and will be made of the dust from all mines, and whenever the dust can be exploded by black powder or dynamite the operators will be compelled to use the permissible explosives, as determined upon at the Testing Station in Pittsburg.

For several years the Department of Mines through the Inspectors, by personal interviews and in the annual reports, has endeavored to bring to the attention of the superintendents, foremen and miners the dangerous properties of coal dust in the mines. Many excellent articles on this subject by able scientific and practical writers appeared during 1908 and 1909 in "Mines and Minerals," Scranton, Pa., in "Coal and Coke Operator," Pittsburg, Pa., and in other publications, and should have convinced every superintendent, foreman and miner that coal dust is really the most dangerous element to be found or encountered in modern coal mines. In addition to this, the United States Government at its Testing Station in Pittsburg has often given practical demonstrations showing that coal dust even in the absence of explosive gas is a dangerous element to contend with, but is much more dangerous when a small percentage of explosive gas is mixed with the dust in the air currents. These practical demonstrations should have convinced the "doubting Thomases" of Pittsburg and elsewhere who are opposing the use of the so-called safe explosives in gaseous mines.

To make the mining of coal practically safe for the miner and the operator from such disastrous explosions as have occurred during the past few years, simple rules should be followed, namely: Ample ventilation should be provided for all parts of a mine so as to keep it free from any accumulation of explosive gas at or near the working places and all other places; the dust should be cared for by wetting it or by some other method, such as the use of calcium chloride or stone dust, that will destroy or make harmless its destructive properties. Neither calcium chloride nor stone dust will prevent a blown-out shot from igniting the coal dust in suspension in the air, but either of them might possibly prevent the destructive force of the explosion in entries, the first by dampening the dust, and the second by mixing with the coal dust and thereby reducing its destructive properties. All accumulations of dust should be removed as often as necessary or at least once a week; the sides, roof and bottom of each working place should be thoroughly wetted for about one hundred feet from the hole or holes to be fired; the exclusive use of permissible explosives as determined by the Testing

Station at Pittsburg should be enforced; the holes should be properly placed and charged with only sufficient explosives to bring down the coal, and tamped with incombustible material; the coal should be properly undermined; that is, it should be undermined a little deeper than the holes are laid; and in dangerous mines the coal should be sheared in addition to undermining before it is blasted. If these precautions are taken, and intelligent workmen who understand the English language well enough to read the rules of the mine are employed, the dangers from explosions of gas and dust in the mines of this State would practically be eliminated. In gaseous mines where locked safety lamps are used, in addition to the preceding precautions, shot firers should be employed to charge, tamp and fire all holes with electric battery when the employes are out of the mine, and they should have the power to refuse to charge any hole not properly placed.

This, briefly, is the only way to safeguard life and property in coal mines from such catastrophes as have occurred in the past.

THE EXPLOSION AT ORENDA NO. 2 MINE

On the 25th of January 5 persons lost their lives in an explosion at the Orenda No. 2 mine of the Merchants Coal Company.

Immediately upon receipt of information regarding the explosion, which reached the Chief of the Department of Mines while in attendance at a meeting of the Mine Law Commission in Pittsburg, instructions were given to Inspectors D. R. Blower, T. D. Williams, Joseph Williams and Nicholas Evans to accompany the Inspector of the district, T. S. Lowther, to the mine to assist in removing the dead and injured, and in making a thorough inspection to ascertain the cause and the initial point of the explosion.

The Inspectors went at once to the mine and after making an inspection as directed submitted their report to the Department, under date of February 17. On the same date they sent a letter to the General Superintendent of the Merchants Coal Company, at Pittsburg. The report of the Inspectors and the letter to the General Superintendent are printed herewith; also a map of the portion of the mine affected by the explosion.

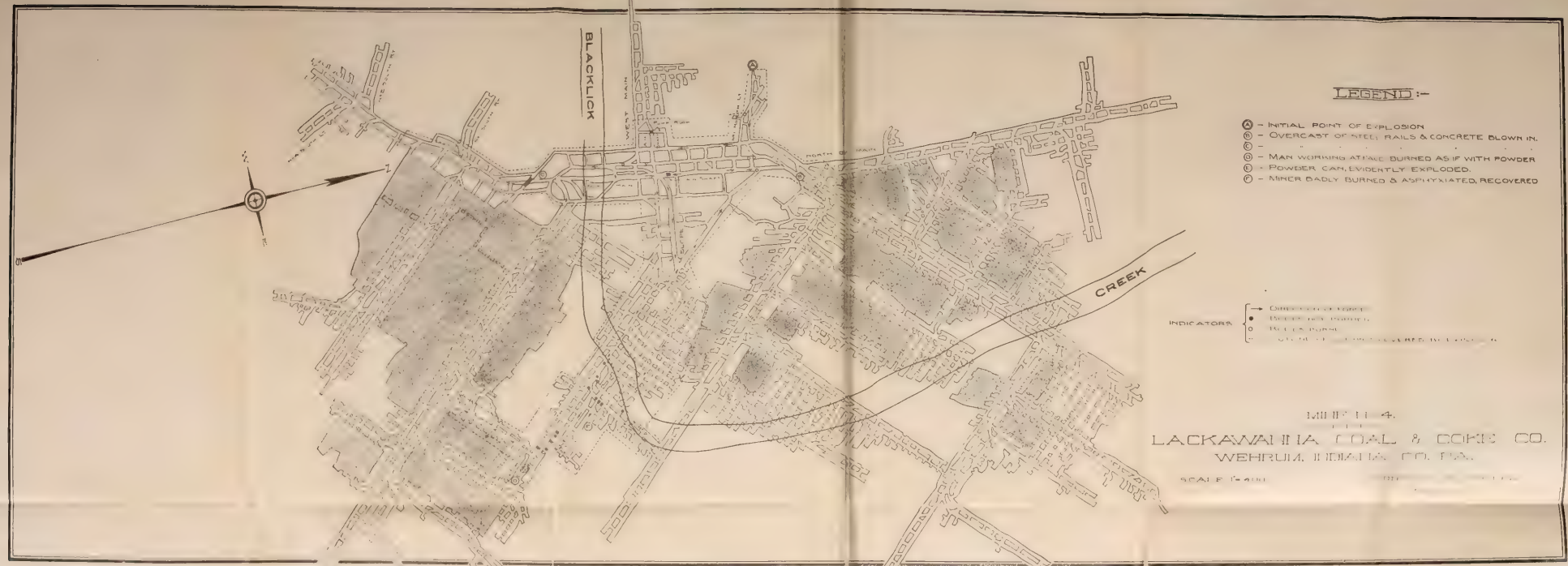
REPORT OF INSPECTORS

"Somerset, Pa., February 17, 1909.

Hon. James E. Roderick,
Chief of Department of Mines,
Harrisburg, Pa.

Dear Sir:

In compliance with your orders, we, the undersigned Mine Inspectors, on being informed that an explosion had taken place at


BLACKLICK
CREEK
LEGEND:-
- INITIAL POINT OF EXPLOSION
- OVERCAST OF STEEL RAILS & CONCRETE BLOWN IN.
- MAN WORKING AT FACE BURNED AS IF WITH POWDER
- POWDER CAN, EVIDENTLY EXPLODED.
- MINER BADLY BURNED & ASPHYXIATED, RECOVERED
INDICATORS
MINE 14.
LACKAWANNA COAL & COKE CO.
WEHRUM, INDIANA CO. PA.

Orenda No. 2 mine of the Merchants Coal Company in Somerset county, at about 8.00 P. M., on January 25, 1909, proceeded at once to the scene of the accident, arriving on the morning of January 26th. We rendered such assistance and made such suggestions as we deemed necessary for the protection of those engaged in exploring the mine and locating and removing the bodies. We found the Mine Inspector of the district on the ground directing the temporary restoration of the ventilation. This was successfully accomplished and the bodies located and recovered by 6.30 P. M. of the same day. This mine is located on the Boswell Branch of the Baltimore and Ohio Railroad.

The opening is a slope penetrating the C Prime seam and extending a distance of 5,000 feet or more at an average gradient of about 15 per cent dip. Levels are driven to right and left off the slope and productive headings are driven in pairs to the rise and dip off these levels. Rooms are driven to the right and left off these headings and the pillars are drawn when the rooms are driven to their destination, or as soon thereafter as practicable.

Hauling is done by animal power in the rooms, and by stationary electric hoists and locomotives on cross headings and levels. The coal is delivered to the main slope at different points and is hauled to the surface by rope haulage.

Ventilation is produced by a 16 x 6½ foot blowing fan, driven by an electric motor at a speed of 126 revolutions, producing 119,370 cubic feet of air per minute and developing a pressure equal to three inches of water gauge. This volume is divided into five different splits by means of overcasts at different points, and is guided and directed to the face of the workings by a system of doors.

On being notified by the management of the Merchants Coal Company that the ventilation was sufficiently restored, we again returned to the mine February 9th for the purpose of determining the cause and locating the initial point of the explosion. On entering the mine we proceeded to No. 7 left level and there found evidence of the force of the explosion having come up from No. 8 left level. We then proceeded to No. 8 left level and in a place known to us as No. 3 south off No. 8 left level (where two bodies had been found) we found evidence that much heat had been produced there at the time of the explosion.

After examining the workings of No. 8 left level (except the faces of the dip headings which were filled with water) we proceeded to No. 8 right level, as the main slopes were filled with water. On going into No. 8 right level we found Nos. 1 and 2 dip headings off No. 8 right level filled with water also; hence we were unable to examine these places. We found at the bottom of Nos. 1 and 2 dip headings off No. 7 right level, where they intersect with No. 8 left level, evidence of the force having come down these headings and having divided at this point, one part going across the main slope into No. 8 left level. We followed the evidences of the other force going into No. 8 right level and up the No. 3 dip off No. 7 right level where the evidence of the force diminished. We then examined the faces of No. 8 right level and found very little evidence of force having been exerted there. We then returned to the bottom of Nos. 1 and 2 dip headings off No. 7 right level, where we found strong evidence of the force having returned up these headings, showing

that the greatest force had been exerted at the intersection of No. 1 dip and No. 7 right level.

Upon re-examining these headings we found explosive gas on falls in pillar workings, also in a cavity in the roof on No. 1 dip heading between Nos. 3 and 5 rooms. This, connected with the facts that gas had been ignited near this same point at three different times between the hours of 5 and 6 P. M. on the day of the explosion; that the bodies of the two officials, Morris and Cole, were not found in the return current from No. 1 dip off No. 7 right level; that no other persons were known to have been in this vicinity at the time of the explosion and that the electric current had been cut off the entire mine at 6.30 P. M., led us to agree in the opinion that the cause of the disaster was an explosion of gas, the gas having been given off the falls immediately preceding the explosion by the subsidence of the overlying strata in the pillar workings off No. 1 dip off No. 7 right level. It was ignited by a feeder of gas left burning from the previous ignition about 5.40 P. M.

DANIEL R. BLOWER,
Inspector of Sixth Bituminous District,
THOMAS D. WILLIAMS,
Inspector of Ninth Bituminous District,
JOSEPH WILLIAMS,
Inspector of Tenth Bituminous District,
NICHOLAS EVANS,
Inspector of Eighteenth Bituminous District,
THOMAS S. LOWTHER,
Inspector of Twentieth Bituminous District."

Letter to the General Superintendent of the Merchants Coal Company:

"Dear Sir:

Having in view the future safety of the Orenda No. 2 mine and persons employed therein, we, the undersigned Mine Inspectors, recommend the following:

1st. That locked safety lamps, without exception, be used in all pillar workings, and in any other working places in and through which fire damp is being generated or carried in the ventilating current.

2nd. That the best known safety explosives be used for blasting down the coal in all pillar workings and in all other working places where fire damp is being generated, the same to be fired by competent shot firers, who shall have the power to refuse to fire any shots that in their judgment may endanger the lives of persons within the mine.

3rd. That the ventilating currents be so conducted as to make all haulage roads and traveling ways on intake airways.

DANIEL R. BLOWER,
Inspector of Sixth Bituminous District,
THOMAS D. WILLIAMS,
Inspector of Ninth Bituminous District,
JOSEPH WILLIAMS,
Inspector of Tenth Bituminous District,
NICHOLAS EVANS,
Inspector of Eighteenth Bituminous District,
THOMAS S. LOWTHER,
Inspector of Twentieth Bituminous District. "

For some reason unknown to the Chief of the Department of Mines, the Coroner of Somerset county did not empanel a jury or hold an inquest on the bodies of the victims of this explosion. The Inspectors who had investigated the cause of the explosion were therefore instructed to repair again to the mine to examine witnesses, under oath or affirmation, in accordance with the law, to ascertain the facts in the case. The evidence herewith is the result of their examination:

Peter Donohue, a track layer, who was laying track in No. 10 room, first dip, 7th right, said: "About or a little after 5 P. M. I experienced what I judged to be a sort of explosion of gas coming from the fifth room in 7th right. I didn't see the flame, but felt the heat passing over my head; then I went up the heading and saw the boy who runs the engine and stayed there a few minutes. When the fire boss, Axon, came along, I told him of the explosion, but he paid no attention to my statement. I then went straight up the heading, and the place was very smoky and full of dust. I went up the track and met the track boss, and we fixed the track for the night shift. This took possibly fifteen minutes or more, and went down the heading the second time, and this time I felt the same experience I did the first time and started to run. I had run possibly thirty feet when I saw the gas lit. Judged it was gas; then I went through the first dip heading and started for the outside. On my way out I saw Logan, Morris and Cole. They told me to blow out my light, and Morris asked me about lighting the gas, and why I hadn't reported it to some of the officials. I told him I had reported it to Watson and fire boss. Mr. Logan took me to the manway with his safety lamp. This was nearly seven o'clock."

James Low, a miner, testified: "I and my partner were working in No. 8 room taking out pillars on the day of the accident, and in the afternoon we had a large cave-in in that place. About twenty minutes before we quit working the fire boss came and we told him we had heard that an explosion of gas had occurred in 7th right. He said if the gas was lit we would know about it. We felt the force of the wind from the explosion, but having never had any experience in gas before thought nothing of it. We left work a few minutes before six, and while going through to the heading to 7th right and when between Nos. 5 and 6 rooms, were knocked down. My butty having lit the gas and we saw the flame. Our light was blown out, and we went back to No. 7 room and got light from the men working in there. While going outside the rope rider said Logan and Morris had gone down the manway. Afterwards we met Cole going down; he asked about the explosion and as to the whereabouts of the fire boss; we said we didn't know."

David Malcolm, a loader, testified: "I was working on the day of the accident in No. 8 room, first dip. Between five and six I felt a gust of wind passing over me, but didn't know what it was, and kept on working. The fire boss came to us; I asked him if it was so that the gas was lit. He just looked at me and said, 'If any gas would be lit you would know about it.' We started for home a little before six, and came out of my room up the dip heading through 7th right, and when we went through the canvas we fell down and had to sit there; didn't know whether I was knocked down or not,

but saw flames over my head and the timbers were all over with sparks. I met Mr. Cole about second right going down. He asked me where the gas was lit. I told him about 5th room."

William Axon, fire boss, testified: "I am the fire boss of part of Orenda No. 2 mine, comprising 1, 2, 3, 4, 5, 6, 7 and 8 dips in first east, 7th right, first and second dip No. 8 proper and back heading. January 25, about 4 P. M., I started out to inspect for the night shift, but was sent out of my district, and examined part of the 7th left first south and the pillar workings. The people were working, but when I came to the top of first dip of 7th right, saw several people I didn't know. One of them said, 'Hello, man, I lit the gas down in the dip heading.' I went down the dip heading and examined the cavity in the roof of room 4, but found no gas in the cavity. There was nobody working in rooms 4 and 5. I examined all the places in the several entries, but found no gas. In No. 9 the roof was working and thought from the cracking of the roof that a fall would occur. On my return I stopped at 6th right and 7th left and heard that Mr. Logan had just left. It was about 6.10 P. M. when I left second dip 6th right on my way out."

John Mayko, pumper, testified: "I was working in Orenda No. 2 and on the night of the accident I was going to work as usual about seven. When I reached the mine foreman's shanty a crowd of night shift men were standing there. I asked, 'What is the matter?' Mr. Hartshorn said he didn't know; that Logan, Morris and Cole had gone inside and that something was wrong. I started down the slope and at 4th right I met Tom Noel, who said I had better not go in; it was too dangerous. I went then to 5th left and to the big air pump. I met Mr. Logan on 5th left on slope at my tool box. He asked me to go with him to 6th right. We passed down the left slope below the 6th. After we passed the hole to 6th right I asked Mr. Logan where he was going, and he said to 6th right. Mr. Logan didn't know that we had passed it. We then went back to the hole and went across to 6th right. Mr. Logan tested for gas there. He said I should stay there and stop all persons going down the slope, and that I should keep my light on the bottom. Mr. Logan said, 'Stay here, Joe, until I come back.' Mr. Logan had gone from me about fifty feet; was talking to me. He had his safety lamp in his hand when the explosion occurred. It sounded like a big heavy shot and knocked me down. I went right up the slope towards 6th right 'phone. I couldn't open the door but a little and saw the flame. Went back again and called on Mr. Logan, but the after-damp was too strong; I couldn't speak. I fell down again. I went to left slope, and fell down, my head inside that hole, and the good air coming through the broken door saved my life."

F. L. Driggs testified: "I work at the power plant at Orenda No. 2 and was at work the day of the accident. Went to work about 6.30 P. M. and cut off the mine circuit at that time. I was ordered to do so by Mr. Hartshorn. The power was not put on again that night."

From the evidence gathered at the mine it was found that word had been sent to Superintendent Logan regarding the first ignition of the gas and as soon as possible he headed a party, consisting of himself, the Assistant Superintendent and the Mine Foreman, to make a personal investigation of the rumor that gas had been ignited.

The occurrence of gas at this mine was very unusual, and all employes were using naked lights.

While these three men were on their way to the place where it was reported gas had been ignited, an explosion occurred, the force of which killed Morris and Cole at the place indicated on the map. Logan, who was near the 5th left, and the two miners, Andrew Stulock and John Stulock, in the 8th left heading, died from the effects of afterdamp.

The two miners were night shift men, but had gone to work during the day shift and were not discovered by the Superintendent.

It would seem from the facts in the case that the Fire Boss was responsible for this explosion, as he undoubtedly, if he knew his business, should have sent all persons out of that section of the mine as soon as the gas was discovered. If he had done this, the death of the five men would not have followed.

THE EXPLOSION AT EUREKA NO. 37 MINE

On the 9th of April a very unusual explosion occurred at Eureka No. 37 mine of the Berwind-White Coal Mining Company, near Windber, by which 7 persons lost their lives.

As no trace of explosive gas had ever been detected in this mine before the accident and as none has been detected since, it is evident that the explosion was caused by an overcharge of dynamite that ignited the coal dust. The amount of dynamite exploded could not alone have wrought such destruction on the fourth main entry, where all the overcasts were blown down and all the stoppings destroyed except one that was built of concrete and was of unusual strength. It is said that the dust from this mine did not explode in the tests made at the Government Testing Station in Pittsburg, but it must be borne in mind that the test made there was not as severe as the test would be from the thirteen holes that had been overcharged with dynamite.

In all cases of this kind, when heavy blasts are fired in rock, even in non-gaseous mines, the roof, sides and bottom should first be thoroughly watered for a distance of about 100 feet from the location of the blasts so as to completely wet and lay the dust. This being the first accident of the kind in this State, I suggest that precautionary measures be taken before similar blasts are fired in future.

The Inspectors' report shows that Assistant Foreman Robert Hunter, while measuring the air current nearly 3,000 feet away, was thrown to the ground by the explosion, a fact that clearly demonstrates its great force. It is fair to presume that if the dust in this mine had been of more inflammable nature, all the persons inside of the mine at the time of the explosion would have been killed.

The report of the Inspectors and the verdict of the Coroner's jury in relation to the accident are printed herewith, together with a map of the portion of the mine affected by the explosion.

REPORT OF INSPECTORS

"Johnstown, Pa., April 12, 1909.

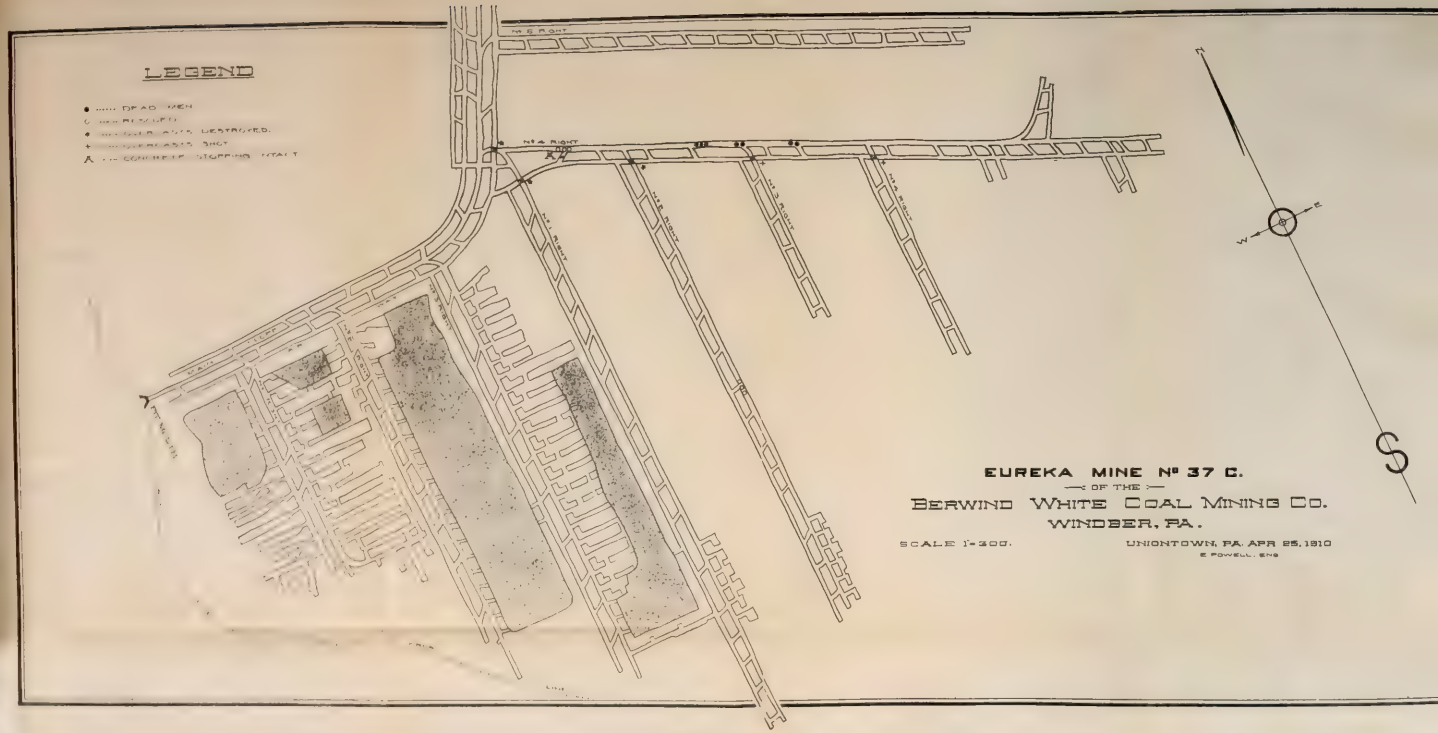
Hon. James E. Roderick,
Chief of Department of Mines,
Harrisburg, Pa.

Dear Sir:

As per your request, we, the undersigned Mine Inspectors, on the twelfth day of April visited and inspected that part of Eureka No. 37 Upper Mine in which seven persons lost their lives by a blast on the 9th instant, about 4.30 P. M.

Upon investigation, we were informed by Mr. Edward Jones, the mine foreman, that Michael Gibson, Arthur Custer, William Gibson, Steve Nemis, Joseph Kowatz, Metro Katopitz and Paul Myernak were engaged in blasting down and removing roof preparatory to the erection of two overcasts, one each at No. 3 and No. 4 right off No. 4 main right entry. Michael Gibson was the rock foreman and for some years had had charge of all rock blasting in the mine. He and Arthur Custer charged fourteen holes with dynamite that had been drilled in the roof at No. 4 entry right. While they were preparing the shots, the other five persons were engaged in removing the roof that had been blasted down the night before at No. 3 entry right. The distance between the two points was about 450 feet, No. 3 being that much nearer the mine mouth. We were informed by the Mine Foreman that Gibson had blasted the roof down at No. 3 entry right the night before and had had some difficulty with it on account of not having used a sufficient amount of dynamite in charging the holes. We were also informed by Robert Hunter, the Assistant Mine Foreman, that he had passed by the place while they were charging the holes and that Gibson, who was tamping one of them, remarked to him that he had had trouble the night before at No. 3 entry right and was giving the holes more dynamite in order to insure the one blast of fourteen holes to break down all the roof necessary for the completion of the overcast. On his way out of the mine and on nearing the mine entrance Hunter stopped to measure the air current, and while thus engaged he heard the report from the blast. The concussion produced was sufficient to throw him to the roadway with considerable force. A rescue party was at once formed, and upon their arrival at No. 3 right they found the five persons who had been at work there dead, and some distance down No. 4 right main and about 250 feet back from No. 4 right they found Michael Gibson and Arthur Custer dead. Nearby them was the battery they used for igniting the blast. We were also informed that three other persons on their way out of No. 2 entry right had been overcome and were found on the No. 4 right main near the entrance to No. 2 right entry. They were taken out and soon revived.

A careful examination of the mine disclosed the fact that the roof at the two points before mentioned was quite different. At No. 3 entry where they had trouble the night before it was very hard and firm with twisted and irregular slips; while at No. 4 it was of a soft character, having regular laminated beds or layers. A very smooth


LEGEND
DEAD MEN
DESTROYED.
CONCRETE STOPPING INTACT
No 5 RIGHT
No 4 RIGHT
No 3 RIGHT
No 2 RIGHT
No 1 RIGHT
EUREKA MINE Nº 37 C.
OF THE
BERWIND WHITE COAL MINING CO.
WINDBER, PA.
SCALE 1"=300'.
UNIONTOWN, PA. APR 25, 1910
E. POWELL, ENG
N
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slip was discovered about 5½ feet above the roof of the entry. All the holes for this blast appeared to stop at this smooth slip and were drilled at such angles as to make their depths about seven feet. One hole was found that had failed to explode, leaving thirteen that had exploded at one time, causing the loss of life as above stated.

We found that considerable force had been developed in the immediate vicinity of the blast, and also along the entries leading therefrom. Considerable fine dust was found in this part of the mine, and we have every reason to believe that a portion of the very fine dust was consumed by the flame from the blast, but we failed to find sufficient evidence to warrant us in giving an opinion that coal dust played a prominent part in this explosion. However, after a careful examination of the place where it occurred, and from all the facts learned in connection therewith, we are agreed in the opinion that the said Michael Gibson, Arthur Custer, William Gibson, Steve Nemis, Joseph Kowatz, Metro Katopitz and Paul Myernak came to their death by an overcharged blast of dynamite, charged and fired by or in the presence of Michael Gibson, the Rock Foreman in Eureka No. 37 Upper Mine.

And further, that in our opinion the said Michael Gibson failed to use good judgment in the amount of explosive used and also in the number of holes included in the one blast, fourteen being the number, thirteen of which exploded. Either of these numbers of holes was entirely too many to be fired at the same time and place in this or any other mine.

C. B. ROSS,
Inspector of Second Bituminous District,
D. R. BLOWER,
Inspector of Sixth Bituminous District,
JOSEPH WILLIAMS,
Inspector of Tenth Bituminous District."

Verdict of Coroner's Jury

"Michael Gibson, Arthur Custer, William Gibson, Steve Nemis, Joseph Kowatz, Metro Katopitz and Paul Myernak came to their death from an explosion in No. 37 mine of the Berwind-White Coal Mining Company, on the 9th of April, 1909, said explosion being caused by an overcharge or blast of dynamite while blowing rock at fourth right off No. 4 right heading, the work being under the supervision of Michael Gibson.

Signed:

Selah Linton, Ralph Caldwell, Rev. D. S. Hafer, James Murphy, Michael Conroy, and S. C. Prosser."

THE EXPLOSION AT LACKAWANNA NO. 4 MINE

On the 23rd of June 21 persons lost their lives in a terrific explosion that occurred at the Lackawanna No. 4 mine of the Lackawanna Coal and Coke Company, at Wehrum. The accident was totally unexpected, as the Department had never been apprised of the existence

of explosive gas in this mine. The Inspector of the district could not at the time give any definite statement as to the number of persons killed or entombed. The Inspectors of the Second, Fourth, Fifth, Sixth, Ninth, Eleventh, Fifteenth, Twentieth and Twenty-first Districts were at once instructed to accompany him to the scene of the disaster to assist in the work of rescuing the living and recovering the bodies of the dead. They were also directed to make a thorough inspection of the mine to locate, if possible, the initial point of the explosion and ascertain its cause, and to place the responsibility on the person or persons who had been guilty of neglect or carelessness. They were also notified to attend in a body the inquest held at Wehrum, July 15 and 16.

The report of the Inspectors in relation to this explosion is a very convincing argument in support of the theory that hardly a coal mine in this State is safe to work in when black powder or dynamite is used, especially when used by ignorant men who know nothing of the dangers lurking in the coal dust of the mine and care nothing about their own safety or the safety of the other employes.

To meet the conditions, as they are found in mines like the Lackawanna No. 4, the mine law should be amended so as to give the Inspectors and the Department full authority to demand that the people in charge of dusty mines shall use all the known precautions and observe strictly the same rules required to be followed in gaseous and dusty mines.

In the proposed law that failed to pass the last Legislature, the term "ordinary" safety lamp was changed to read "improved" safety lamp, which lamp might possibly have shown one or two per cent. of explosive gas in the air of the No. 4 mine, while the ordinary safety lamp could not have detected this amount. It may be stated here that the wet condition of parts of the mine referred to prevented the explosion from communicating to all the parts of the mine and thus the lives of other employes were saved. This accident tends to show that the dust in all coal mines should be watered and taken out. To secure safety for the future mining of coal a stringent law must be passed giving the Inspectors the power to demand that necessary precautions be taken, even at the expense of closing down the mines when, in their opinion, continued operation would be a menace to life. The report of the Inspectors and the verdict of the jury follow herewith; also a map of the mine:

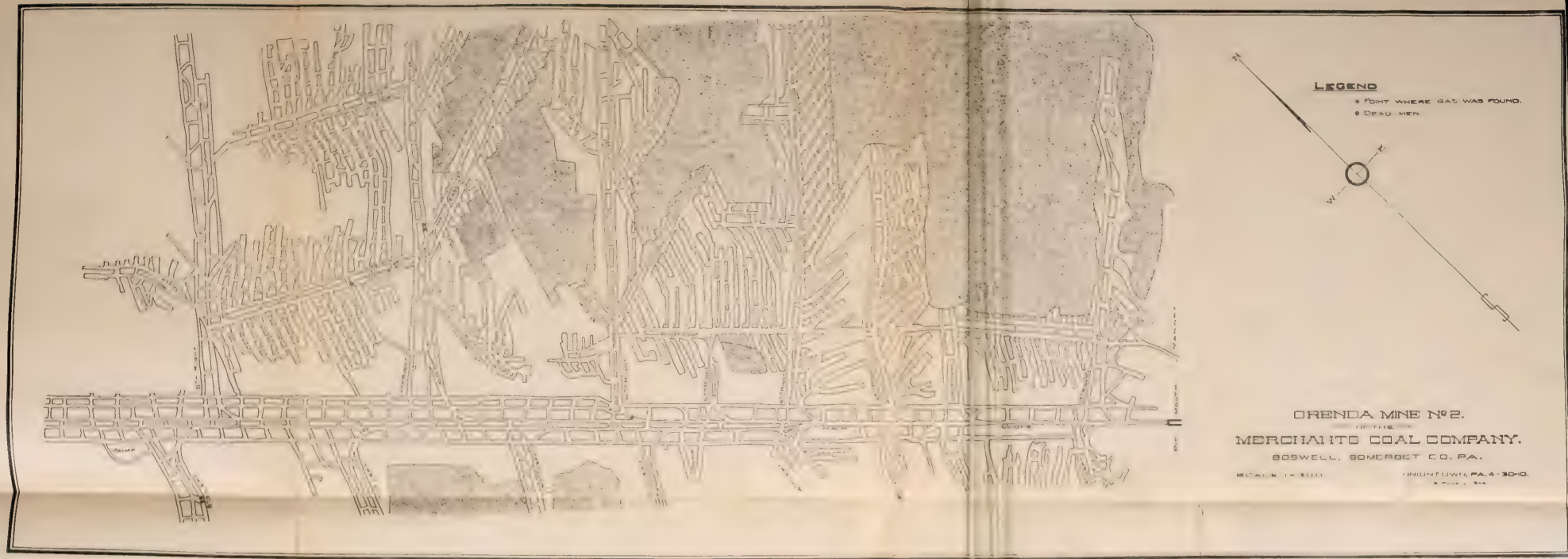
REPORT OF INSPECTORS

"Altoona, Pa., July 14, 1909.

Hon. James E. Roderick,
Chief of Department of Mines,
Harrisburg, Pa.

Dear Sir:

At your request, the undersigned mine inspectors, on the 24th, 25th and 26th days of June, 1909, made an inspection of the Lackawanna No. 4 mine, of the Lackawanna Coal and Coke Company, situated at


LEGEND
POINT WHERE GAS WAS FOUND.
DEAD MEN
N
E
W
ORENDA MINE No 2.
OF THE
MERCHANTS COAL COMPANY.
BOSWELL, SOMERSET CO. PA.
UNIONTOWN, PA. 4-30-10.

Wehrum, Indiana county, to ascertain, if possible, the cause, and to locate the initial point of the explosion that occurred in said mine on the morning of June 23, 1909, about 7.40 o'clock, which resulted in the loss of 21 lives and the serious injury of 11 persons.

The B or Miller seam is being mined at the Lackawanna No. 4 mine at a depth of about 180 feet beneath the surface. The coal is hoisted out of a rock slope at a pitch of about 35 per cent. A second opening, a hoisting shaft, is located a short distance north of the slope. The shaft had been equipped for lowering and hoisting persons and was also used in connection with the slope as an inlet for ventilation. A third opening is a shaft located 250 feet west of the foot of the slope and used as an outlet for ventilation. The fan producing the ventilation was placed at the top of this shaft and was operated on the exhaust principle. It is of modern type and construction, 16 feet in diameter and 8 feet wide, and is driven by steam power. It usually produced 131,000 cubic feet of air per minute at a speed of 100 revolutions against a water gauge of 2.75 inches.

Fortunately the ventilating machinery was not seriously damaged by the explosion and continued in operation, except that it stopped possibly for a few seconds, as shown by the pressure gauge chart, but the slope or main entrance, being an inlet and but slightly damaged, allowed the escape of several persons who otherwise would no doubt have perished. It also gave the rescuers an opportunity to enter the mine immediately after the explosion, which we have every reason to believe enabled them to save several lives that otherwise would have been lost.

The main developments in the mine are conducted on the two, three and four entry systems. Haulage is done by rope on the main slope. Electric motors are used for delivering the coal from the different parts of the mine to the main landing at the foot of the slope. Coal cutting machines are of the puncher type and operated by compressed air.

The main entry running north and south and passing the foot of the slope at right angles thereto was used as a haulage way, as was also the west side parallel to this entry. Both of these entries were used as inlets for air from the hoisting shaft and slope to the mine workings, the second parallel entry on the west side being used as a return to the fan shaft, while the east side parallel entry, which passes under the slope and is the fourth entry in this group, was being used as a return north of the slope and an inlet south of the slope. This group of four entries was extended a distance of about six hundred feet north and south of the slope. From these points the developments were continued on the two and three entry systems. The mine is ventilated by five air splits or divisions of the main air current.

We entered the mine by way of the slope or main entrance and made a careful examination of the bottom of the slope and hoisting shaft and for some distance around them. Evidence of considerable force was present at all points, also of flame in many places. Continuing our examination we found that in no direction from the bottom of the slope had the force extended beyond a distance of one thousand feet, except in No. 1 south entries, where it reached the face of each. In this area we found overcasts of concrete strengthened

with steel rails, stoppings of brick and wood, doors and timbers blown in different directions and in many places pieces of them had been carried many feet from their proper location, mine cars derailed, electric wires blown down, motors disabled, very heavy timbers displaced and general debris scattered practically in all directions.

All indications about the bottom of the shaft and slope appeared to point to the fact that the main force had come from the north. Continuing along the main north and on reaching a point beyond the No. 1 chute, which connects this entry with the west side parallel or back haulage, we found that a division of force had taken place at this point, the evidence of which was very plain, very heavy timbers having been displaced and moved in opposite directions, the one division going in the direction of the shaft and slope while the other went in the opposite direction toward the face of the main north entry. Following the latter to a point where an overcast of masonry had been built over this entry we found that the top of the overcast had been blown off, and that the force had spent itself at this point and a short distance beyond, the entry on each side of the overcast for some distance being very wet. Returning from this point to a chute, which we passed through to the west side parallel or 'back haulage,' we found a division of force had taken place on this entry and about opposite to where the same had taken place on the main north entry. From this point we proceeded to the first north entry left and discovered that quite a force had entered the entry. Passing along it a short distance we found evidence of force coming in an opposite direction from the face of the entry. Evidence of considerable heat was also found and on examining the face of the entry and also that of the parallel we found that a blast had been fired in each, and that each blast had done the work intended. No evidence of an excessive amount of flame produced by either was found. However, the blast that had been fired in the entry had been placed in the coal underneath the fire clay bottom. No evidence of any explosives having been exploded was found, except that used in blasts mentioned above; but instead we found three and one-half sticks of dynamite undisturbed in a box a short distance back from the face of the entry. No explosive gas was found in any part of the mine.

After a careful tracing of the forces in the entry we were of the opinion that the initial point of the explosion was at or near its face and that considerable flame had been produced, but from what cause we were unable to determine. We then proceeded to the No. 1 south entry where we found evidence of a force having entered, wood stoppings having been blown out to the right and left of the entry. A door used for directing the air current near a point where the entry turns to the right was blown to pieces and carried toward the face. The force continued to the face of the entry and passed through the last chute to the parallel. A short distance back from the face of the parallel, evidence of considerable heat and flame was found. The main force after entering the parallel passed down the parallel entry some distance below a chute near Nos. 2 and 3 left butt entries, derailing cars and bending and displacing air lines and timbers along its route. We then proceeded to No. 2 entry south and found that the force had entered there, but had spent itself before

going any considerable distance, evidently owing to the excessive amount of moisture along the entry. Continuing on to a point on the south main entry where an overcast of concrete had been erected, we found that the top of the overcast had been blown off, and that the force had spent itself at this point and a short distance beyond, the entry for some distance on each side of the overcast being very damp. We next proceeded to the west main entry where evidence of force having entered was present, but owing to the water having raised to a considerable depth, caused by the pumps being disabled, we were unable to explore to any great extent. However, this force weakened and gradually spent itself before traveling any great distance, and was no doubt checked by the amount of moisture along this entry.

We returned from this point to the first north entry left, which about completed a circuit of that part or parts of the mine affected by the explosion. We retraced our steps through the entry, but failed to find any evidence that would in any way change our opinion, formed on our first examination of this entry, viz., that the initial point of the explosion was in this entry. We then left the mine.

On the morning of the 26th we entered the mine and made another close examination of the first north entry left, and on examining the blast we found that the fire clay had been completely loosened up, especially in and about the center. A piece of burned fuse was found, but the depth of the water at this point prevented us from making an examination of the bottom of this blast, as before stated.

From this point we proceeded again to the No. 1 south entry and entered the first butt entry. Continuing along the entry until we reached the first opening to the left, we entered and discovered evidence of force having traveled up this entry or aircourse. We continued to the second cut-through north of the slope, which had been driven through the pillar between the main north and east side parallel entries. A brick stopping that had been placed in this cut-through had been blown out and in the direction of No. 1 south entry, this being near where the division of force took place on the main north entry. We returned by way of this aircourse, tracing the force, which gradually weakened until it joined the force coming up No. 1 south entry at the No. 1 left butt entry. We continued from this point on up the No. 1 south entry and through the last chute leading into the parallel and to where the powder had exploded, as before mentioned. We then returned to the outside.

On June 27th, Alexander Monteith, one of the inspectors who assisted in making the investigation, visited the hospital and received the following statement of Thomas Bestesta, an Italian miner, who worked in the first left north entry: 'On the evening of June 22nd, on quitting work, we fired a shot in the bottom. The hole was drilled in the coal. This shot displaced the fire clay in a large piece, too large to be loaded in the car. We returned on the morning of the 23rd and decided to break it. We placed two and one-half sticks of dynamite (40 per cent.) on or under the fire clay (attached to it was 6 feet of fuse) and returned to a cross-cut 15 to 20 yards back. The shot went off, filling the place with flame.'

When asked if he felt any shock previous to the blast he said that he did not.

The coal underneath the fire clay had evidently been crushed to a greater or less extent by the blast the evening before, and this

amount of dynamite, having been exploded in the coal and not being confined, evidently produced much heat and flame. The concussion produced by the exploding dynamite sent the flame at a rapid rate out of this entry, thereby setting up a destructive distillation of gases from the dust thrown in suspension along its route until it reached the main north and west side parallel entries at the point where the division of force took place on these entries, as before mentioned. The entries at these points had the appearance of having been dry, and the dust that had been deposited on the roads, especially on the roof and sides, (for we believe that the most dangerous dust is to be found on the roof and sides), became sus pended in the air, and this coming in contact with the flame produced quite an explosion at this point and was transmitted to all parts of the mine, with the effect herein described.

From our observations and the statement of Bestesta, we are firmly of the opinion that the initial point of the explosion was at or near the face of No. 1 north entry left. The general trend of force from that point, as herein described, was, we think, sufficient evidence to establish that fact. The statement of Thomas Bestesta not only confirms this opinion, but establishes the fact beyond any doubt both as to the initial point and the primary cause of the disaster, this cause being the firing of what might be termed an open or unconfined blast of dynamite which spent its force on the atmosphere of the mine, thereby producing the same dangerous effect as that of a blown-out shot.

We are further of the opinion that the disaster was the result of carelessness or lack of knowledge of the proper use of explosives, and while we greatly deplore the disaster and the way in which Bestesta prepared the blast that was the primary cause, we think it only just to commend Bestesta for his truth and veracity which he so manfully maintained after the disaster occurred relative to its cause. His statement is, in our opinion, sufficient evidence that he was ignorant of the dangers likely to follow his act. Otherwise he would probably not have confessed, and if he had not confessed, the primary cause would no doubt have been recorded as one of the unsolved mysteries connected with mine disasters.

Three things presented themselves very plainly to us in our examination of this mine, and we deem it advisable to call attention to them in this report. They are as follows:

1st. That the greatest force was developed in the main inlet road or airways, and at points that were dry.

2nd. That the forces weakened on entering the return airways.

3rd. That the forces were completely spent when they came in contact with plenty of moisture for a considerable distance along the entries.

We deem it our duty to offer the following recommendations in order to better secure the lives, health, safety and welfare of persons employed in Lackawanna No. 4 mine, Lackawanna Coal and Coke Company:

1st. That none but permissible explosives be used for the purpose of blasting coal or other material in the mine, such as have passed the government test and are noted on the permissible list.

2nd. That the mine be kept as free as practicable from dust, and if necessary to prevent any dangerous accumulations of dust from

floating in the atmosphere, the same be thoroughly watered and kept wet.

3rd. The exclusive use of non-combustible material for stemming all shot holes.

4th. That extreme caution be exercised in blasting and handling explosives.

5th. That no shot shall be laid deeper than the under-cutting.

6th. That safety lamps be used when and where directed by the law.

7th. That rigid discipline be enforced and maintained at all times.

8th. The employment of a sufficient number of fire bosses to examine every working place without exception and all roadways immediately before each shift.

9th. That these recommendations apply not only to Lackawanna No. 4 mine of the Lackawanna Coal and Coke Company, but to all other mines of similar conditions.

Respectfully submitted,

JOSEPH WILLIAMS,
10th Bituminous District,
C. B. ROSS,
2nd Bituminous District,
ELIAS PHILLIPS,
4th Bituminous District,
ISAAC G. ROBY,
5th Bituminous District,
T. D. WILLIAMS,
6th Bituminous District,
P. J. WALSH,
9th Bituminous District,
D. R. BLOWER,
11th Bituminous District,
ALEXANDER MONTEITH,
15th Bituminous District,
NICHOLAS EVANS,
20th Bituminous District,
F. W. CUNNINGHAM,
21st Bituminous District."

Verdict of Coroner's Jury

"We, the Jury impaneled to determine the cause of the death of the seventeen miners or employes of the Lackawanna Coal and Coke Company, find that their death was caused by an explosion, presumably dust, in Mine No. 4, owned and operated by the said company, located at Wehrum, Indiana county, Pennsylvania, on June twenty-third, one thousand nine hundred and nine. Said explosion was caused by the carelessness of Thomas Bestesta, a miner, firing a dynamite shot, not tamped, at the face of first left heading off north main heading.

Signed:

Franklin Sansom, Harry P. Dowler, Edward A. McConville, Harry Kallaway, Thomas M. Doherty and J. Dalton Johnston."

THE EXPLOSION AT FRANKLIN NO. 2 MINE

On Sunday afternoon, October 31, about 3.15 o'clock, an explosion of dust occurred in the Franklin No. 2 mine of the Cambria Steel Company, near Johnstown, by which 13 employes were killed and many injured. The Inspectors of the Second, Fourth, Fifth, Tenth, Fourteenth and Twentieth Districts were at once instructed to accompany the District Inspector, T. D. Williams, to the scene of the disaster to examine into the conditions and make a report to the Department.

Franklin No. 2 mine is a non-gaseous mine and has been worked as such from its inception, every person working therein having used an open light. Yet in this mine, which is considered and in fact is a safe mine, 13 persons were instantly killed by an explosion due to the recklessness of two men, who in face of instructions to the contrary used dynamite in blowing the coal from the solid when it should have been mined with the pick.

The report of the Inspectors, the verdict of the jury and a map of a portion of the mine are printed herewith.

REPORT OF INSPECTORS

"Johnstown, Pa., November 3, 1909.

Hon. James E. Roderick,
Chief of Department of Mines,
Harrisburg, Pa.

Dear Sir:

Upon learning of the accident at the Franklin mine and in accordance with your instructions, we, the undersigned Inspectors, proceeded to the scene of the explosion, reaching there the same evening and the following morning.

Upon our arrival there we found that the rescuing parties, including Inspector T. D. Williams, had removed all the dead and injured out of the mine. There had been at work during the day some twenty-eight persons, who were employed in different parts of the mine laying track, timbering and others driving an entry. The accident resulted in the death of thirteen persons, two having died since the explosion, and two others are in a precarious condition in the hospital.

The opening is a drift mine penetrating the "B" or what is locally known as the "Miller" seam of coal, and the workings are developed on the double entry system of mining. The main tunnel is driven some five thousand feet from the entrance to the mine, on a course south 37 degrees and 10 minutes east. To the left of the main tunnel and at right angles thereto, main entries are turned to the left at a distance of 1,200 feet apart. The cross or parallel entries are turned at right angles from the main left entries. The mode of mining is room and pillar, the rooms being turned on 60 foot centers and driven about 25 feet in width.

LEGEND
ORIGIN OF EXPLOSION
LIVING MEN WHEN FOUND
DEAD MEN
FRANKLIN MINE Nº 2.
OF THE
CAMBRIA STEEL COMPANY.
CONEMAUGH TWP
CAMBRIA CO. PA.
SCALE 1" = 400

The seam of coal averages about three feet and eight inches in thickness, but owing to a fault or dislocation the seam is reduced in thickness until in some of the entries it is only twelve inches thick, or even less. This faulty condition of the seam is quite evident in the area covered by the 4th and 5th left main entries.

The mine workings are quite extensive and the product of the mine is hauled by electric motors on the main tunnel and main left entries, the voltage of the current being 250. The seam is mined by pick; compressed air is used for drilling in rock and for pumping. The mine is ventilated by a Sturdevant fan ten feet in diameter and has a capacity for producing a large volume of air.

On Monday afternoon, the day following the date of the explosion, we made a careful examination of that part of the mine known as the 4th left entry. We entered the mine on the main tunnel and proceeded along this passageway until we came to the 4th left main entry. Turning into the latter entry we traveled forward to a point where the 5th and 6th parallel entries are turned, at which point we discovered the first evidence of the force of the explosion. From this point inward to the face of the 4th left entries we found debris on the roadway, electric wires torn down, air pipes broken and the stoppings blown out from between the 4th left main entry and parallel and thrown to the main entry, indicating that the force had traveled out both entries.

Upon entering the 11th parallel slant, which had been driven about 120 feet from the 4th left main entry, we found that three shots had been fired in the face of the entry, and upon inquiry learned that two men had been working in this entry on the day of the explosion, who were severely burned, resulting in their death, their bodies being found near this point. This entry was being driven nine feet wide. The coal seam was only twelve inches thick and was being blasted from the solid by the use of dynamite. Owing to the depth and direction of the drill-holes into the solid coal and, no doubt, excessive charges of dynamite, only the front of the holes was dislocated, leaving the back of the drill-holes remaining to a depth of from twelve to eighteen inches. The coal dislocated by the blasts was pulverized into fine dust, and, as we believe, the shots were fired simultaneously. Much heat was produced, together with compression by the blasts. The concussion threw the fine dust into suspension, and the temperature of the flame from the blasts was of sufficient intensity to ignite the floating particles of dust, thereby distilling the gases out of the coal which, in turn, were instantly ignited by the flame of the dynamite.

We, therefore, are of the opinion that the explosion was started by the blasts in the 11th slant parallel. We are also of the opinion that if the coal had been properly mined and a permitted explosive used the explosion would not have occurred. The portion of the mine affected by the explosion was very dry and dusty, but the area covered by the explosion was not very large, the force of the explosion being arrested by a body of water lying in the No. 10th parallel entry off 3rd left main entry. This water absorbed and reduced the intense heat, which was so evident in the dry portion of the mine, and, no doubt, extinguished the flame, there being no evidence of heat beyond this point.

In our examination we found no evidence of fire damp, and we are of the opinion that none was present to play any part in the explosion, but was the result of careless and improper method of blasting without undercutting the coal and the use of flaming explosive.

In order to reduce the liability of such accidents occurring in the future, we offer the following recommendations, which, we believe, if strictly carried out, will better secure the health and safety of the employes in mines of a gaseous or dusty nature:

1st. That permissible explosives be used exclusively in all parts of the mine where blasting is required to be done, and that all shots be stemmed with clay or other non-combustible material, and that all shots be charged, tamped and fired by competent shot-firers employed for that purpose, and that batteries be used for firing all shots.

2nd. That all coal be undermined before blasting, and where the seam thins down to such an extent that blasting it is impracticable, then the whole of the seam should be removed by pick or machine before the bottom is blasted.

3rd. That in all parts of said mine where coal dust has accumulated to a dangerous extent, care should be exercised to prevent said dust from floating in the atmosphere by sprinkling it with water, or otherwise, as far as practicable.

4th. That locked safety lamps be used exclusively in all pillar work and other places in or through which fire damp may be carried in the air current.

We are of the opinion that if the above mentioned safeguards are introduced and properly applied, together with rigid discipline and a strict compliance with the law, no fear of a repetition of this disaster need be entertained. Our experience in the past has proven to us conclusively that we have the necessary safeguards at our command to protect life in our mines, but we are very sorry to say not the necessary legislation to enforce their use in their entirety. Upon recommending them on our visits to many of the mines we are often confronted by a reply from the officials and others that the law does not require them, regardless of the fact that they are and have been in use in many mines for years, and their continued use is sufficient proof of their value for safety. Therefore, we are of the opinion that it is only a question of their introduction and proper use by the operators and officials in order to prevent a repetition of many of the late disasters such as have occurred in some of our mines in the bituminous region.

Respectfully yours,

THOMAS D. WILLIAMS,
6th Bituminous District,
C. B. ROSS,
2nd Bituminous District,
ELIAS PHILLIPS,
4th Bituminous District,
I. G. ROBY,
5th Bituminous District,
JOSEPH WILLIAMS,
10th Bituminous District,
DAVID YOUNG,
14th Bituminous District,
NICHOLAS EVANS,
20th Bituminous District."

Verdict of Coroner's Jury

"We find that the parties named came to their death in Franklin Slope No. 2, a coal mine owned and operated by the Cambria Steel Company, a corporation of the State of Pennsylvania, located in Conemaugh township, at 3 o'clock and 7½ minutes P. M., on Sunday, October 31, 1909, as the result of an explosion of coal dust, caused by the igniting of an overcharge of dynamite at the face of the eleventh parallel slant off of fourth left heading. We are of the opinion that the responsibility rests with the common practice of blasting from the solid, as was in vogue in said Franklin Slope No. 2 prior to and at the time of said explosion.

George E. Hamilton, Conrad Bader, George Lavely, John Woodchak, W. C. Flick, Ivan R. Linton, J. C. McMillen, per H. B. Mainhart."

REMARKS CONCERNING THE PROPOSED BITUMINOUS MINE LAW THAT FAILED OF ENACTMENT IN THE SESSION OF 1909, WITH A COPY OF THE LAW

The remarkable increase in the production of bituminous coal in Pennsylvania in recent years and the consequent changes in mining conditions have added materially to the difficulties and dangers of operation. The recognized inadequacy of the existing laws to meet the greater demand for safeguards on behalf of the workmen and for the protection of property resulted in the passage, by the Legislature of 1907, of a resolution authorizing the Governor to appoint a Commission of five persons to revise the present laws governing mining operations in the bituminous region. The resolution reads in part as follows:

"Resolved (if the House of Representatives concur), That the Governor of the Commonwealth be and he is hereby authorized to appoint a Commission to revise the present bituminous mine laws of Pennsylvania; the said Commission to be composed of five members, two of whom shall be selected from among the operators of the eastern and western sections of the bituminous region, and two from among the mine workers of the eastern and western sections of the bituminous region (from a list to be submitted by the mine workers), and one who shall be a person versed in the art of mining and who has no pecuniary interest in the operation of any coal mine in Pennsylvania.

The said Commission is hereby authorized to select an attorney to assist them in the work of revision, and also a stenographer, both of whom shall be paid from the said appropriation of fifteen thousand dollars.

The said Commission shall hold its meetings in Pittsburg, where all persons who are interested in the revision of the said bituminous mine laws may appear and give expression to their views. The said Commission shall have the right to call into consultation any persons who, in its opinion, may be able to give information that will assist in the work of revision.

The said Commission shall make a report of its deliberations to the next Legislature, which will convene January, 1909."

Under this resolution the Governor, after careful consideration, appointed as representatives of the mining interests George W. Schluederberg and Robert A. Shillingford, two mine managers, one from Pittsburg and one from Central Pennsylvania, men who were at the time and are now directing two of the largest corporations in the bituminous region. As representatives of the miners he appointed Francis Feehan, President of District No. 5, United Mine Workers of America, located at Pittsburg, and William Currie, President of a local district of the same organization in the central part of the

State. All these appointees were highly recommended as men of ability, integrity and experience. As the fifth member of the Commission the Governor appointed the Chief of the Department of Mines, whose experience in mining in this country covers a period of nearly forty-eight years—seven years as miner's laborer, miner, fire boss and mine foreman, eleven years as superintendent, ten years as mine inspector, ten years as mine manager, and a period of over ten years as Chief of the Department of Mines.

The Commission has been criticized as not properly representing the operators and miners, but my opinion is that a better selection could not have been made than the four persons named. Regarding the fifth member appointed to look after the interests of the State, I have no comment to make, except that he performed his duties to the best of his ability. The Commission worked harmoniously and without domination from any of the members. Ample time was allowed each member to explain his views regarding each section of the law as it was taken up for consideration. Naturally, under the circumstances, no one member succeeded in having his wishes complied with in every instance. In fact, the proposed law as prepared and presented to the Legislature was a compromise measure, embodying, however, the best thought and experience of a majority of the Commission.

The Commission held its sessions at Pittsburg, and after numerous meetings—the time covering about sixty days—the work was finished and the bill ready for the signatures of the members. Then, to the great surprise of the other members, one of the Commission refused to sign it because two of the articles incorporated therein did not fully meet with his approval. His action was greatly deplored, as the Commission naturally felt that in view of the importance of the measure and the amount of thought and labor that had been expended upon it, it should be presented to the Legislature in the way most favorable to its enactment as a law, that is, with the unanimous endorsement of the Commission.

A copy of the bill was sent to the Governor and also one to the Speaker of the House, and in the letters of transmittal sent therewith particular attention was called to some of the vital points in the new bill that had not been covered by any previous legislation. The points were as follows:

"Providing for additional entries required in the opening of new mines and, also, providing escape ways in mines already opened.

Providing safe traveling ways for men on foot and fixing the height of the same.

Increasing the volume of air for both gaseous and non-gaseous mines, and providing more stringent provisions for conducting the air to the working places, with measurements to be taken of the same at the face of working places, and the stoppings used to force the air to the face to be of incombustible materials.

For the use of safety explosives whose use shall be permitted by and under the direction of the Department of Mines, and blasting by shot firers in gaseous mines under certain prescribed conditions.

For the wetting and removal of dust from mines.

For a sufficient number of assistants to mine foremen to visit each working place twice daily, for the purpose of instructing the miners to avoid accidents from carelessness by the men themselves.

For providing for a better grade of illuminant oil, under test of the Department of Mines.

For ambulances at mines to transport the injured.

Regulations for shaft sinking.

For the more extended use of safety lamps.

Requiring a certificate of competency for the superintendent of gaseous mines where locked safety lamps are used exclusively.

For the prevention, if possible, of blown-out shots, by the shearing of coal in entries in gaseous mines.

For safeguarding coal properties against oil and gas wells drilled within the coal territory, by requiring record of location of holes to be filed at Department of Mines.

Legalizing the use of electricity in gaseous mines and providing for special rules for the installation of it.

Requiring age of a boy from school records before employment.

For more careful supervision in the employment of men with a view to their ability to understand the conditions of the mines, laws and rules.

Increasing the number of mine inspectors and districts, and providing for the grading of their salaries according to the length of service."

When the bill finally reached the Legislature it was referred to the Committee on Mines and Mining of the House, and a hearing before that Committee was held March 10. At this hearing Mr. Feehan, a member of the Commission, made a long and bitter argument against the adoption of the articles on Safety Lamps and Electricity, and Mr. Shillingford, also a member, made a brief speech in refutation of his statements. At the second hearing before the Committee, March 16, after it had become known that the Commission was not unanimous in support of the bill, the operators, managers and superintendents who were opposed to it appeared in force to prevent it from being reported out of Committee. Several lawyers made most rabid speeches against the bill, but it was painfully evident that they did not understand what they were talking about, and the one who made the most bitter attack on it failed utterly to comprehend its intent or scope, as he directed his attack against sections in it that were not at all new, but were merely repetitions of the old law. There was no stenographic report made of the proceedings of this meeting, or possibly some of the persons who took a prominent part in the discussion would afterwards have read with some degree of shame their unfair and illogical statements.

At the third hearing before the Committee, in addition to the many operators, managers and superintendents, several miners and State Mine Inspectors were present. At this meeting the following letter, addressed to the Committee on Mines and Mining by the Chief of the Department of Mines, was read by his Deputy, Mr. Hall:

Harrisburg, Pa., March 23, 1909.

Hon. Milton W. Shreve, Chairman,
and the Members of the Committee on Mines and Mining.

Gentlemen:

As Chairman of the Commission appointed by the Governor to revise the bituminous mine laws of Pennsylvania, I deem it my duty

to call your attention to the bill as signed by four of the five members of the Commission.

The Commission was composed of two expert mine managers, representing two of the largest coal corporations in the Commonwealth, men who were able, honest and fearless in the discharge of their duties; two representatives of the miners, who were presidents of the United Mine Workers of America, and the Chief of the Department of Mines, representing the Commonwealth. The Commission held numerous sessions covering a period of sixty days, without mentioning many days and nights of hard work spent on the bill at our homes. The most serious consideration was given to the provisions of this bill and it would have been unanimously presented had the four members of the Commission yielded to the demands of Mr. Feehan regarding two articles, to-wit, Article 8—Safety Lamps, and Article 9—Electricity.

The Commission having completed its work, it is for the members of the Committee on Mines and Mining either to reject or endorse it. I do not wish to be understood as making any apology for this bill, but I deem it my duty as Chief of the Department of Mines to say to the Committee that the law now in force was enacted in 1893, when the conditions relating to the safety of the workmen in the bituminous mines were very much better than the conditions that exist to-day.

The first draft of the bill was prepared by the individual members of the Commission and submitted for the consideration of the Commission. Many of the sections were changed to meet the views of the representatives of the operators on the Commission; others were changed to meet the views of the representatives of the miners on the Commission. Other sections were changed to meet the views of the operators, managers, mine foremen, fire bosses, miners and inspectors, after the public hearings, and the proposed bill contains suggestions from all people interested, including oil and powder men, electricians and chemists, who were all consulted.

The proposed law was accepted by many of the best mining men in the State as being reasonable in its provisions, and many operators pronounced it all right and less radical than they had expected. The lawyers, however, who appeared and spoke against it were not so fair in the matter, and the law in several of its provisions was twisted to suit the arguments they had prepared. Unfortunately, there are no stenographer's notes of their remarks extant or they would no doubt be ashamed to read the record of their utterances before the Commission.

The Bituminous Mine Law of 1893 above referred to was at that time and for years afterwards considered the best mine law in the country. The Commission that revised the law at that time had before them the records from 1877, a period of fifteen years. From the records of 1892 they learned that 46,581,575 tons of coal had been produced by 65,857 inside workers from 697 mines, an average of 707 tons for each employe. In the production of this tonnage 129 persons lost their lives inside the mines, showing that for each life lost 361,097 tons were produced and for every 1,000 persons employed inside 1.96 lives were lost. The bituminous region was at that time divided into eight inspection districts, each inspector having an average of about 87 mines. These were the figures and statistics with which the Commission had to deal when revising the law in 1893.

The question of further amendment to the law has been talked of for many years, but not until 1907 was any action taken. In that year the Boden bill was introduced and passed the House, but was not reported out of Senate Committee.

The Commission appointed to revise the present law was confronted by the following statistics: The production for 1907 was 149,559,047 tons, or 3.21 times the tonnage of 1892, and the inside employes had increased to 150,371, or 2.28 times the number in 1892. During 1907 each inside employe produced an average of 994 tons, an increase per employe of 287 tons, or, in other words, an increase of about 40 per centum. Only 195,246 tons were produced per fatal accident inside, against 361,097 in 1892, or a reduction of 46 per centum in the production per fatal accident. During 1907 and for several years previous the bituminous region was divided into twenty inspection districts, an increase of 150 per centum in the number of inspectors from 1892. The number of mines in operation during 1907 was 1,387, or twice the number in operation in 1892; giving each inspector an average of 70 mines in 1907 as against an average of 87 mines in 1892. The loss of life per 1,000 employed inside during 1907 was about 5.08 against 1.96 for 1892, an increase of about 150 per centum.

It may be said that the loss of life for 1907 was abnormally high, but statistics will show that the average loss of life for the past six years, 1902 to 1907, was about 4 for each 1,000 employed inside, an average increase over 1892 of more than 100 per centum, and about three times as many lives as are lost in the mines of Great Britain per 1,000 employed. In this State while the accidents have been constantly increasing, in Great Britain they have been constantly decreasing. There is no valid reason for this great increase in the loss of life in this country, except the one fact that at least 75 per centum of the employes of the mines cannot understand the language of the country.

From the tone of the arguments of a few of the operators or their attorneys, who stated that the law of 1893 was adequate to care for the lives of the miners, the Committee may infer that they, the operators, agree with Mr. Feehan, who has publicly announced, as reported through the press, that the catastrophes of Naomi, Darr and Marianna were due to the neglect of the Department of Mines in not enforcing the law. The Department makes no denial of such sweeping, reckless statements, as all intelligent men know they cannot be substantiated.

I have nothing personal at stake in this matter and no pecuniary motives in urging the passage of this bill. My only desire is to protect the many thousands of mine workers, the majority of whom are ignorant and ill-fitted to take care of themselves. I have heard the arguments of the operators, and, while some of them were well founded, others were entirely without weight or justification. The arguments advanced by the operators and their attorneys against the provisions of this bill were about the same kind of arguments that were presented against the adoption of the provisions of the bills of 1877 and 1893. It was contended at that time that the passage of the bills mentioned would close down the mines; that they could not be operated. It may be observed, however, that the mines are still working and the operators are growing wealthy.

I can appreciate the opposition to this bill, as undoubtedly it will add something to the cost of mining, but I do not see how the men who are operating dangerous mines can reasonably object to its provisions, because its purpose is to protect human life and they are aware of the fact that unless greater precautions are taken it is only a question of time, perhaps to-morrow or the day after, or at least in the near future, when serious explosions may occur, resulting in the death of many hundreds of workmen. The provisions of the law must be strict and they must be enforced if we are to prevent the ignorant and careless workman from sacrificing the lives of his fellow-employes. There are scores of mines in this Commonwealth in which an error in judgment on the part of the foreman or fire boss or the ignorant and careless miner may send hundreds to their death.

It may be something of a hardship to impose some of the provisions on some of the non-gaseous mines, yet in those mines even if there are not as many men killed, there are a great many more suffering through the want of pure air in the smoke-laden atmosphere.

Gentlemen of the Committee on Mines and Mining, think carefully what you are about, as the lives of hundreds of mine workers are in your hands. Give the Department a law that *will protect,* and I will give you my word that as long as I am Chief of the Department of Mines it will be my effort to enforce the law, especially the sections that care specifically for the health, lives and limbs of the miners.

As Chairman of the Commission and as Chief of the Department of Mines, I think that I have the right to ask the Committee to report this bill to the House with a favorable recommendation.

The men who prepared it were experts and have spent sixty days in its preparation, while the time your Committee can devote to it must necessarily be limited. If the Committee will not recommend it favorably, I cannot help it, but with the transmittal of this communication to you I feel that I have finished my work and have done my duty. My sincere hope is that the Committee will not turn a deaf ear to the plea of the bituminous coal miners of this great Commonwealth.

Respectfully submitted,

JAMES E. RODERICK."

The following statements made by some of the opponents of the bill and also by two of its defenders are taken from the stenographic report of the meeting.

Mr. ———, of Allegheny county, representing the Allegheny Valley operators, said in part:

"There are a number of points in this bill which would affect the Allegheny operators and many of them would affect the Pittsburg operators, practically all of the operators of this entire State working in bituminous mines.

First, the law that pertains to electricity. There is not a man who has been engaged in the business of producing coal for ten years that doesn't know that the entire business of electricity as applied to mining has changed. In fact, probably five years has seen a

complete revision, and what will the next five years bring forth? And now a hard and fast rule is to be laid down here which will be obsolete in five years. I would rather see this regulated by a Commission, to be appointed possibly, say two men from the miners, two mining engineers, two electrical engineers and two inspectors, the Chief of the Department of Mines, and a lawyer.

Another thing is the question of masonry stoppings. Now, I don't think it is intended, I don't think that the wording they have in this bill that masonry stoppings should be carried right up to the face. Where an explosion would take place if bratticed there and allowed that gas to expand near the face it would save the balance of the mine. Those who have gone down into a mine after an explosion, where large masonry brattices have been put in, have seen that they were blown asunder and broken up. This is a practice that should not be carried out.

Another question raised by several members in our district is, where it speaks that there shall be no door on any main entrance. There are a few exceptions to this that ought to be permitted, and this ought to be left to the judgment of the mine inspector."*

Mr. ———, representing the Coke Producers Association of the Connellsville Coke Region, said:

"As a representative of the Coke Producers Association, I desire to say we are not here to oppose any measure which will in any way promote the safety or protect the lives of the miners employed in the Connellsville Coke Region. We believe, however, that Mr. Roderick and this Mining Commission, in their zeal, have created a measure which, if put into effect and force, would in large measure confiscate a great deal of the mining interests of this Commonwealth, and especially of the Connellsville Coke Region.

I think it has been demonstrated clearly to this Committee that this law if put into effect would materially increase the cost of production; it has been variously estimated from six to fifteen or sixteen cents a ton. I believe at least midway between these two extremes would not be an unfair estimate; that is, ten to twelve cents a ton. That cost must come either from the laborer, the consumer or the producer. Now, as to the Connellsville Coke Region, if we put the cost of our production up there, that must come from some place, and you might say put it on the consumer, but in putting it on the consumer we must meet the competition of West Virginia and our neighboring states, and that would interfere quickly with our mines, as forty per cent. are idle to-day. We must meet the competition from other states, and we cannot place it upon the consumer with this beyond our control. We must meet the competition of our neighboring states where the cost of production, the taxation is less, and they are not tied down by hard and fast rules of law. If it comes from the operator they will shut their mines down, because they are unable to meet the competition of neighboring states. Therefore, if we attempt to get this cost, it must be derived from the laborer, and the only way to meet it is by reduction of wages, and, I might say, in the language of Bryan, 'you shall not press down upon the brow of labor this crown of thorns.'"

One of the attorneys for the operators spoke in part as follows:

"In opposing the provisions of this bill we believe it is manifestly unfair and exceedingly oppressive, and will add to the cost of bitu-

*This objection is met in section 1, Article VII.

minous coal in Pennsylvania from ten to twelve cents a ton. This tax will be a discrimination against Pennsylvania coal and in favor of Ohio, West Virginia and Kentucky.

The bill has been drawn hastily or carelessly and introduces many features that are new to Pennsylvania mining. In the first place, it is going to establish a system of examinations for miners. If the mines in Western Pennsylvania are to be placed on the plane where every man employed in them is to be examined, that certainly is introducing a new and strange theory into the law of this Commonwealth. Section 13 of Article V means nothing else, because it says: 'No person is to be employed to work in the mine until he has given satisfactory proof that he can do the work allotted to him without endangering the lives of his co-employes, unless said person is put to work with an experienced miner.'

There are a number of other things, among them that of sprinkling and hauling dust. The provisions of this bill alluding to that are absolutely impossible to enforce. Take the provisons of Article IV, Section 1. There is a provision there in that bill that makes it impossible to comply with that provision. Before I finish the dust examination I want to call attention to another very oppressive feature of this bill, an unnecessary one. Section 1 of Article IV provides that there shall be a careful examination by the fire boss before each shift. Now, we understand that that examination must be made between three and six o'clock, and if you turn over to Article IV, section 3, that a 'second examination by the same or other fire bosses shall be made during working hours of every working place and every roadway in the same manner as the first examination.' *That is, two examinations before noon, and if you go over to Article V, Section 10, you find there a provision for two more examinations. It says there that 'in all mines the mine foreman shall employ a sufficient number of assistants to insure a visit to each working place, either by himself or by his assistants, twice each day, once in the forenoon and once in the afternoon.' Under the law of 1893 we have an examination each morning, and here we are to submit to four examinations a day. The hardship of that is that that requires a large number of qualified assistant foremen and mine bosses. They are scarce and hard to get, and command high wages. They command much higher pay than the ordinary employe of the mine. Those four examinations are absolutely oppressive and unnecessary. You cannot legislate to make a mine safe, and after all it is personal supervision, it is superintendence, it is careful attention to work that is going to make mining safe.

There is a provision in Article V, Section 12, that if enforced by the mine inspector provides that where there is a collection of gas in a mine that he can require the drilling of a hole six inches in diameter to let that gas out. In Western Pennsylvania where we have high hills we have physical conditions that render that absolutely impossible. Here is a new idea, that they shall drill a hole six inches in diameter from the surface to the high point in such fall in order to give the gas an opening to escape to the surface.

I prosecuted a lot of people under the mining law and that is why I stand here, too, with some authority as a lawyer, and say that the present mining law, if enforced, is absolutely sufficient for the bituminous region.

*Mr. Adams' answer shows the fallacy of this argument.

These are a few of the things that make this Act absolutely oppressive, unconstitutional and wrong."

One of the leading members of a large coal company, after a lengthy argument, said:

"This law is imperfect throughout. It is imperfect in phraseology, ungrammatical, ambiguous, and gives room for doubt and litigation."

Mr. Thomas K. Adams, Mine Inspector, said:

"I want to say of this Commission that they have shown great courtesy to all those who wished to appear before the Commission to give their opinions upon this bill. We had advance copies of their work. The operators had advance copies of their work. We appeared before the Commission and gave our views as to what we thought would make a good bill. We have diversified interests in our State—the operators on the one side and the miners on the other—and you know that all of our legislation is more or less of a compromise, but we must not lose sight of the principal of protection. I think the bill is a good measure, and, if enacted into a law, will afford a great deal of protection to the miners. There is great necessity for having some other law than we have at present.

One gentleman stated, 'you will have to examine all the miners.' That is not in the proposed law. You want to obtain information whether the man is competent to do the work before you send him into the mine producing gas, or to play the miner. That doesn't say that you have to put him through an examination, but you have to have the information.

Another gentleman says, 'you will have to have four examinations per day.' That is not in the proposed law. Two examinations a day are required; that is the way the bill is constructed.

In regard to bore holes. This is being done now by the Frick Company and the Oliver Company, and it has been effective in eliminating standing gas from those falls, in old workings.

I have no idea that it will cost ten to twelve cents a ton to carry out the provisions of this bill, and I do not believe it will drive one operator out of business in this State. We were told the same story in 1892 when we were formulating the law that we have to-day. And yet we have increased the production from 46,000,000 tons up to 149,000,000; from 60,000 men employed up to 150,000 men.

I want to say to you that the part that is devoted to electricity was drawn up with the best expert electricians that we have in this part of the country. That is their work, not the Commission's work, and I venture to say that it is one of the best codes we have, either in Germany, Belgium or New Zealand, because it is practically the New Zealand code approved by expert mining men. The present law is almost silent about how to install electrical machinery. It is put in any way, without regard for safety or anything else, with the exception of several companies who keep electricians and do their work right, and some of those men don't have objections to this bill. The Pittsburg Coal Company exceeds this electrical code, and thinks it will be a great protection, and is going to carry it out regardless of the law.

In regard to the examination that should be made twice a day by the mine foreman, it would increase the safety, of course, if done

properly by certified men. He ought to go into the different working places and instruct the men where to stand and to set the timber, and where to drill his holes, fire a shot, and so on. If he cannot make his rounds, he should have an assistant. I can go into fifty headings where they work in three feet, in three hours, and make a visit, too, and do it, and give the proper instructions.

About the shearing and cutting of coal: That is to prevent the explosion. When you prepare the coal properly and shear it, you reduce the amount of the explosive to be used, and in that way you reduce the liability of having a blown-out shot. You scarcely ever see a blown-out shot where the coal is properly mined.

The proper height of a traveling way should be five feet with our low seams; nothing less than five feet."

Mr. Patrick Gilday, President of District No. 2, United Mine Workers of America, said:

"Mr. Chairman and Gentlemen of the Committee: After listening to those gentlemen, I do not think there is any of the bill left, not even the title of it, and I have not very much to defend. I don't purpose to try to defend or make reply to all of the statements made, but I am somewhat surprised at the statements made by some of the gentlemen, not only to-night, but last Tuesday night.

One thing that has been forced upon me, listening to the arguments on these two evenings, is that the Governor made a grand mistake in appointing the five incompetents that drafted this bill. By the remarks made here it seems that they were better adapted for growing pumpkins than drafting mining laws. I, however, don't know some of these people personally, and yet I know they are as well versed in mining and the needs and wants of the miners and what is necessary for safety, both the safety of the property as well as the life and safety of the miner, as any gentleman sitting in this room to-night, and I am sorry to hear gentlemen making the statements they have made, that those gentlemen did not know what they were talking about when they drafted his bill, that it is drastic and vicious.

I remember being present in Pittsburg when the gentlemen—many of whom are here to-night—were invited before that Commission. They were given a full opportunity to express their opinions, not only by word, but by writing, and there were none of the mistakes pointed out to the Commission at that time that seem to be pointed out to-night, and I am forced to the conclusion, notwithstanding the kindheartedness that has been expressed towards the miner, that they have a kinder heart towards the dollar than towards the life and safety of the miner. I do not like to make this statement, but I am forced to the belief that commercialism has more to do in trying to tear this bill to pieces than humanity.

I remember four years ago coming down to Harrisburg for the purpose of getting some mining legislation, and we were told the same story as we are told to-night. 'Let us go slow on this matter. Let us set the matter over for two years and let us draft a bill that will be satisfactory.' A bill was presented in the House two years ago, and after several hearings before the Committee some of the very same gentlemen appeared and by their talk before the Committee the gentlemen who drafted that bill were going to put them

all out of business if their ideas were put in force, and every mine in this State would close down if the bill should be made a law. We were counseled to go slow and take two years more and introduce a resolution asking for the appointment of a Commission representative of miners, operators and owners of the State. That was done. Two years have been delayed in doing that, and many scores of accidents have taken place within the last two years. Now we are confronted again with the statement that this bill is drastic and vicious, that there is so much capital invested and so much to be considered that it is important to this Committee, and the Committee were told last Tuesday night that they would commit a legislative crime if they were to pass upon this bill. Now we are asked to leave the bill go over two years more and study over it. Who is going to study over it? This Committee? None of these gentlemen know whether they are coming back to the House or not, unless they have a cinch on politics. The purpose of the miners is not to embarrass the operators. What benefit would it be to the miner to have the bill passed as presented by that Commission if the statement is correct, as made, that it would close down the mines in this State? What good would such a mining law be to the miner if he had no work? The miner don't want to see one-tenth of a cent put on the price of coal. But the miner does ask of this great State of Pennsylvania that she protect the life and health of the mine laborer working in the mine. Only the Legislature of Pennsylvania can enact a law that will safeguard their rights, and we come here to plead before this Committee, and we ask them to pass a bill that will protect the health and life of the miner, and at the same time, if possible, not increase the cost to the operator or injure his business. When we injure the operator's business and close down the mines, we injure ourselves to a greater extent than we do our employer, because usually the employer has something more to fall back on; but when the miner loses employment he loses his living.

I want to impress upon the Committee that it is not the purpose nor am I delegated by the miners to ask you to increase the cost of production, if it is possible to pass a bill without doing so, but we do say that the number of accidents taking place by explosions, falls of roof, etc., has become so numerous that some steps must be taken to protect the miners.

The number of miners unable to speak English to-day are 65 per cent. of the miners inside the mines. The Coal Companies will tell you that they are forced to employ this class of labor. When they employ that class of labor there must be more protection and more attention paid to that class than there was twenty years ago, when it was pretty nearly all English-speaking miners and all you had to do was to tell a man where his room was and tell the miner to take him to a certain heading. Now, sometimes the miner has to take the man in, put the lamp correct on his head, take the lamp out of his fingers for fear it would burn him—he doesn't know how to carry it—and protect him from falls of rock and loose coal; and it is necessary for someone to go around to those places and notify those men, if they see dangerous roofs or loose coal or if any of those people are working in danger, and instruct them. But if you leave them in the face not knowing their danger there, and there is nobody to instruct them, you are going to bury some of them. I come in as close

contact with the mine foreman and the superintendent and the miner as any man in this State, and I know this, that if the Coal Companies had sent their foremen and superintendents here, who are in close touch with the miner, instead of their attorneys, the position would possibly be different before this time. The man who sits in the office and looks over the cost account does not know as much about the dangers of coal mining as the miner who goes into the mine eight or ten hours a day. These are the people who know what is necessary, and if they were called here to-night and asked to express their opinion, there is not a mine foreman in the State of Pennsylvania to-day that would not tell this Committee that it is absolutely necessary to place more safeguards than the present law places around them, and they would urge this Committee to put this bill into the House and make it a law as quickly as possible. I am here because I happen to be a Committee authorized by the miners. Take away the miners and what would become of the coal property? The coal would remain in the hills for the next thousand years. We have hundreds of people in the State of Pennsylvania who have miner's asthma. If there were purer air put into the mines there would be no miner's asthma. But they are refused that because it keeps the fans going all night; the employer says it is not necessary. They tell you it is going to put the mines out of business where the fans must be installed instead of a furnace. I can tell you of a case last week where the furnace backed, and if there had not been people on the ground who understood what took place and went to the men and got them out in time, there would be recorded here to-day 20 or 40 suffocated. I never saw a furnace yet in a shallow mine that was any good, and I don't think any man in this room ever did.

'The members of District No. 2, U. M. W. of A., representing an organized body of 37,000 miners and mine laborers, ask a favorable report from the Committee on Mines and Mining on this bill.'

A great deal of stress has been laid on the fact that if they have to undercut and shear the headings that are fourteen feet or less in width, it will drive the operators out of business. In driving a heading, any fourteen foot heading, where you have machine mining, you can still undercut with a machine. Mr. Clark said it would cost seven or eight cents a ton. In the old days of mining the old practical miner that was driving a heading preferred to shear the coal rather than blast it. They don't do it to-day. The purpose of the Commission in putting that in was to prevent blown-out shots. You have heard of explosions that have been blamed on blown-out shots. The heading can be sheared by a practical miner in one hour, at thirty cents an hour. The heading will turn out eight tons of coal, or four cents per ton. Suppose you have a mine with twenty headings, and that is a pretty good mine; it takes four cents a ton to shear that coal. It will cost, all told, on the twenty headings in the pit, $6.40 a day, and I am prepared to go with any man who is operating a mine and prove that those headings can be sheared.

The statement that the shot firer is going to cost sixteen cents a ton is incorrect. In the State of Illinois they have shot firers, and it costs them exactly one and three-fourths cents per ton instead of sixteen cents per ton, according to the figures given to us.

I do not know of any section of the bill that is not satisfactory. Mr. Feehan was not satisfied with the bill because he believed elec-

tricity should be eliminated from the mines where they generate gas and locked safety lamps used in the same mines.

The old law defined a gaseous mine as a mine where gas is detected by the *common* safety lamp; the new law says 'where detected by the *approved* safety lamp.' "

Mr. ———, of the Central Pennsylvania Operators Association, said:

"The various objections raised have been confined mostly to particular districts or to particular sections of this bill which affect these particular districts. We heard Mr. Feehan two weeks ago in his statement (advocating the use) of safety lamps, while Mr. Gilday is opposed to the use of safety lamps. It is entirely a matter of difference. The objection to this bill is the fact that the Commission has endeavored to formulate a law which will apply to the entire bituminous interests of Pennsylvania.* They might just as well endeavor to formulate a law which would apply to all of the coal interests of Pennsylvania, for the interests of the districts are as diversified as the anthracite is from the bituminous as a whole. I am in favor of a law which would grant discretion to the inspector, which would affect the particular districts which are so diversified in their requirements. Have that discretionary power vested in the inspector."

Mr. ——— said: "It has been stated that commercialism was more largely at the bottom of this than safety to life and property, so far as the position taken by the operators and owners is concerned. This is unkind and wrong. The owners and operators are more interested in conserving the interests and lives of their men than the whole Miners' Union, or anybody else. In saying that, I recognize the fact that Mr. Roderick is a man of absolute integrity. He has persistently and consistently followed his only idea of procuring a great good which he thought was necessary to have. We all recognize that we want a good official, but there is such a thing as going too fast in our desire to do good in this world, and I think Mr. Roderick's judgment in desiring to obtain what he thought was for the great good has probably been running a little too fast. I am going to say to you of the Committee, don't go too fast."

One of the general managers said in part:

"It is not wonderful at all that there would be a great difference of opinion as to just what our law ought to be as to mining, because our coal seams are so different and the methods of mining must be so different, but I would say to you that if this bill is passed as now framed and we are compelled to *undercut and shear,* we will have explosions ten to one more than we have ever had there before. The explosions we have had here before have been few and far between. We have a coal seam nine feet thick. It is geologically known as the Pittsburg seam of coal. Out in our region it thickens up, is of less specific gravity, and is more liable to create dust by that undercutting and shearing, and there is no doubt that the most of our trouble was caused by this dust. There are only two methods we have to prevent mine explosions from gas. One is to give a sufficient amount of air to ventilate and to carry off the gas; the other is to use safety lamps.

*The Commission was appointed for that purpose.

The law prescribes that there must not be less than 100 cubic feet of air per minute furnished for every man employed, and at least a sufficient amount to carry out and render harmless all dangerous and noxious gases; to furnish that much, and as much more in any case as one or more of the inspectors may deem requisite. I stand ready to produce that amount of air that will render harmless and carry out all dangerous and noxious gases. Do you want anything more than that?

How about safety lamps? All entries, tunnels, rooms and other working places in the mine shall be worked exclusively with locked safety lamps. *Gentlemen, where were you when those explosions occurred? Whose fault is it if those explosions occur, if safety lamps are used? It is right down on you and not any one else in this State. You are the men who are to blame.*

We have a condition in our mines that is very peculiar, in our region, with regard to undercutting and shearing the coal. For thirty years I have been familiar with the inside of the mine, and I will say that if you enact a law that will make us shear or cut where we have been shooting our coal without those methods, you will introduce a dangerous thing in our mines that is liable to blow us up. We don't quite understand this explosive business. It is probably a mixture of gas and coal dust. There is an effort being made now to determine just what this cause is.

Now the Commission put sixty days on this law. I will tell you to formulate a law to properly apply to the mining interests of this great State of Pennsylvania would require a corps of five times as many men for five times as much time as they put upon this. You throw away at one full sweep the experience of the last fifty years. You throw all that away and attempt to introduce a qualified form of law gotten up by five men in sixty days.

About Mr. Gilday's representations here: I have seen the same kind of asthma that he has. I have never met a miner with asthma. I have talked with thousands of them and never met a miner yet that had miner's asthma.

Again, those foreign miners in a mine. There is not one man now in the mine that does not understand English. Well, I will say there is scarcely a man in our mines that does not, where we had before plenty of them, and we had fewer explosions then.

You introduce another new feature that is harmful and dangerous to us in regard to undercutting. We do not use many machines. It has never been desirable to use them. We want fine coal, not lump coal. But, really, by undercutting we would get coarse coal. The day has gone by when a man will suffer just for the sake of not using machines. He will take powder and shoot down his coal, and you attempt to make him undercut or shear, instead of shooting, and he will not do it. The day is past when men will work and sweat for that which they can take down for a few cents worth of powder. The history of nearly all our blown-out shots has come from where there has been undercutting."

No attempt will be made by me to show the fallacy of the arguments advanced against the bill, but the reader is left to judge from the remarks of Inspector Adams and Mr. Gilday, a president of the United Mine Workers of America, and from the text of the proposed law, how unjust and how unfair were the criticisms made against

many of the provisions in the bill; provisions, it may be stated, that are to-day in force in many of the best conducted mines of the State, especially those of the H. C. Frick Coke Company. Several of the prominent operators of the State made no objection whatever to any part of the bill, and several of the persons who appeared against it in Committee had previously favored it, but they changed their attitude because they were ordered to do so.

After the third hearing before the Committee on Mines and Mining, I called three of the Inspectors, two attorneys, and a representative of the operators, to Harrisburg. Several days were spent in going over the bill, noting the objections and weighing the arguments against the several provisions thereof, especially the arguments against the article requiring certificates of competency for superintendents of gaseous mines where locked safety lamps are used exclusively, and also the article on the care of gas and oil wells, and the article on penalties. On the advice of the attorneys, the article on gas and oil wells was dropped from the proposed law, the penalty article was amended, and the article relating to certificates of competency for superintendents of gaseous mines where locked safety lamps are used exclusively was amended by eliminating the clauses requiring certificates for superintendents. I think it is only proper to state here that the article on gas and oil wells was handed to me, for incorporation in the law, by one of the prominent speakers from Pittsburg who appeared against the bill. The penalty article was framed after the Anthracite Law, which has been in force since 1870 without imposing any hardship on the operators.

After these changes and other minor changes were made in the proposed law (which changes appear in italics), it was taken before the Committee on Mines and Mining for the fourth time, and arguments were made in its behalf by one of the attorneys and by Mr. Feehan, who, regretting his former opposition to the bill, asked that it be reported favorably out of Committee. However, when a vote was taken, a majority voted against favorable recommendation.

The proposed law as presented at the last meeting of the Committee is printed herewith, in order that the work of the Commission may not be lost. It may be that at some future time this law will help another Commission or possibly some member of the Legislature to prepare a new mining code, which I hope will receive greater consideration by the law-makers of the Commonwealth.

AN ACT

Relating to bituminous coal mines and providing for the lives, health, safety and welfare of persons employed therein.

ARTICLE I

Maps and Plans

Section 1. Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met and it is hereby enacted by the authority of the same, That the operator or the superintendent of any Bituminous coal mine

shall make or cause to be made by a competent mining engineer or surveyor an accurate map of the mine on a scale of not less than two hundred feet to the inch, which map shall show as follows:

First. All measurements of said mine in feet or decimal parts thereof.

Second. All the openings, excavations, shafts, slopes, drifts, tunnels, planes, main entries, cross entries and rooms and the name or number of each working place.

Third. An accurate delineation of the boundary lines between said mine and all adjoining mines or coal lands and the relation and proximity of the workings of said mine to all adjoining mines or coal lands.

Fourth. The elevation above or below mean tide at Sandy Hook of the top and bottom of each shaft and slope of all drifts, tunnels, planes, and of the face of entries, at each semi-annual survey, and in rooms and entries adjacent to boundary lines at points not more than three hundred feet apart; also the number of last survey station and the date of said survey on the entries; the location of streams, rivers, lakes, dams or any other bodies of water on the surface, with their elevations accurately and plainly marked; the location and elevation of any body of water dammed in the mine or held back in any portion of the mine, giving the true area of said body of water, unless inaccessible before the passage of this act; the location of all bore holes penetrating the coal strata; and the location of all oil and gas wells.

Section 2. When the workings of a mine are within three hundred feet of the boundary lines, application shall be made by the operator or the superintendent to the inspector for information as to the proximity of the workings of any adjoining mine, and if the workings of any adjoining mine are within three hundred feet of the nearest boundary line, the inspector shall so notify the said operator or the said superintendent, who shall have that portion of the workings of the adjoining mine surveyed and shown on the map of the mine first mentioned.

By the written authority of the inspector, the engineer or surveyor of said mine shall have the right of entry into the adjoining mine for the purpose of making this survey only.

Section 3. A true copy of said map shall be kept in the mine office at the mine for the use of the mine officials and the inspector and for the inspection (in the presence of the superintendent or the mine foreman) of any person working in said mine, whenever said person shall fear that any working place is becoming dangerous by reason of its proximity to other workings that may contain dangerous accumulations of water or noxious gases.

Section 4. At least once every six months the operator or the superintendent of every mine shall cause to be shown accurately on the original map of said mine and on the copy of the map in the mine office, all the excavations made therein during the time that has elapsed since such excavations were last shown thereon.

The operator or the superintendent, at the request of the inspector in writing, shall order that any portion of any mine shall be surveyed and entered on the original map when in the opinion of the inspector such portion of the mine is approaching accumulations of water or noxious gases. And whenever any of the workings or ex-

cavations of any mine shall be driven to their destination, it shall be the duty of the operator or the superintendent to cause the mining engineer or surveyor to check up all his previous work and notes of said mine, so that he can certify that the said map shows correctly all the excavations made therein.

Section 5. The operator or the superintendent of every mine shall furnish the inspector of the district with a true and correct copy of the aforesaid original map of said mine on tracing cloth, and at the end of every six months thereafter the inspector shall return said copy to the operator or the superintendent, who shall place or cause to be placed thereon all the extensions made and all parts of the mine worked-out or abandoned during the preceding six months, as provided for in section four of this article, and shall forward the map to the inspector within thirty days from the time of receiving it: Provided, That in lieu of the map on tracing cloth as aforesaid the operator or the superintendent shall have the privilege of furnishing every six months a blue print showing the complete workings of the mine to date. When more than one seam of coal is being worked in any mine, the inspector shall be provided with a separate copy of the original map on tracing cloth or a blue print of the complete workings of each seam, as provided for in this article. The copies of the maps of the several mines as hereinbefore required to be furnished to the inspector shall remain in the care of the inspector of the district in which said mines are situated, as strictly official records, to be transferred by him to his successor in office, and in no case shall any copy thereof be made or any information therefrom be given without the consent of the operator, except as provided for in section three of this article.

Section 6. Whenever a mine is worked-out or abandoned, the operator or the superintendent shall, within sixty days thereafter, extend the inspector's map to show clearly all the worked-out or abandoned territory, with all property and boundary lines and elevations, as required in section one of this article.

The owner or the operator of the abandoned mine shall also, within sixty days after its abandonment, send to the Department of Mines a tracing of said complete original map, which shall be kept in the Department as a public document. The mining engineer or surveyor shall certify that said tracing is a true and correct copy of the original map of said mine and that the original map is a true, complete and correct map and survey of all the excavations made in said abandoned mine.

Section 7. If the inspector shall have reason to believe that any map of any mine furnished to him in pursuance of the provisions of this article is inaccurate or imperfect, he is hereby authorized to have a survey and a new map made of said mine. The cost of the survey and map shall be recoverable from the operator as other debts are recoverable by law: Provided, however, That if the map claimed by the inspector to be inaccurate or imperfect shall be found to be practically accurate, then the Commonwealth shall be liable for the expense incurred in making said survey and map, which expense shall be paid by the State Treasurer upon warrant of the Auditor General issued upon the presentation of voucher approved by the Chief of the Department of Mines.

ARTICLE II

Shafts, Slopes, Drifts, Openings and Outlets

Section 1. It shall not be lawful for the operator, superintendent or mine foreman of any mine to employ any person therein, unless there are at least two openings or outlets to the surface from every seam of coal and from every lift thereof, which openings or outlets shall have safe and distinct means of ingress and egress available at all times for the use of the employes. The distance between two shafts shall not be less than two hundred feet, and the distance between the openings to the surface of slopes shall not be less than one hundred and fifty feet, and the distance between drifts shall not be less than fifty feet: *Provided that the distances specified may be less with the written consent of the inspector.* The passageways between said two shafts shall at all times be maintained in safe and available condition for the employes to travel therein, and the pillars in entries between said shafts shall not be removed without the consent of the inspector in writing to the superintendent: Provided, however, That the distances between said openings shall apply only to mines opened after the passage of this act.

Section 2. Section one shall not apply to the opening of a new mine or to the opening of a new lift of a mine that is being worked for the purpose of making connection between said two outlets as long as not more than twenty persons are employed at any one time in making the connection or driving the second opening; and it shall not apply to any mine in which the second opening has been rendered unavailable by reason of the final robbing or removing of pillars as long as not more than twenty persons are employed therein at any one time. The cage or cages or other safe means of egress shall be available at all times for the persons employed in any mine that has no second outlet available.

Section 3. A passageway not less than five feet high and three feet wide in the clear shall either be cut around the bottom of every shaft or shall be driven through the solid strata, and shall be kept open at all times so as to enable persons to pass from one side of the shaft to the other.

Section 4. Every gaseous mine opened after the passage of this act shall have at least four main entries, two of which shall lead from the main entrance and two from the second opening into the body of the mine; and every non-gaseous mine shall have at least two main entries, one of which shall lead from the main entrance and one from the second opening into the body of the mine.

After the passage of this act every new mine projected to open up a large acreage with main entries five thousand feet or more in length, wherein gas can be detected by an approved safety lamp, shall have at least five main entries, two of which shall lead from the main entrance and two from the second opening into the body of the mine, and the fifth, which may be connected with an opening to the surface or be connected with the intake airway at or near the main intake entrance, shall be used exclusively as a traveling way for the employes.

Every new non-gaseous mine projected to open a large acreage with main entries five thousand feet or more in length shall have at least three main entries, one of which shall lead from the main en-

trance and one from the second opening into the body of the mine, and one, which may be connected with an opening to the surface or be connected with the intake airway at or near the main intake entrance, shall be used exclusively as a traveling way for the employes.

In every gaseous mine opened prior to the passage of this act having less than five main entries that have reached five thousand feet or more in length and which are to be extended two thousand feet or more, the superintendent shall have a new opening of ample dimensions made from the surface, and the four main entries and the traveling way shall be extended from this opening to the face of the workings. *Provided, however, that this new opening shall not be made unless the inspector of the district and two additional inspectors appointed by the Chief of the Department of Mines shall deem such additional opening necessary for the proper ventilation of the mine or the safety of the miners.* If a mine opened as a non-gaseous mine is found to be generating explosive gas, the operator may continue to work said mine, with the consent of the inspector in writing, under the provisions and requirements of this act for a non-gaseous mine until by due dilligence the operator can change conditions to meet the provisions and requirements of this act for a gaseous mine.

The intake entries shall be kept well drained and in safe condition and free from refuse of all kinds so that persons may travel therein throughout their whole length and have a safe and easy means of egress from the workings in case of emergency. Said entries shall be separated by pillars of coal of sufficient strength and shall not be driven more than two hundred feet beyond the last cut-through except for exploratory purposes.

When the main entry of a non-gaseous mine or both main entries of a gaseous mine used for intake for air are also used for mechanical haulage, a separate traveling way leading into the body of the mine shall be provided for the use of the employes in going to and from their work. In mines opened prior to the passage of this act where no separate traveling way is provided, the employes shall be hauled in and out of the mine at the beginning and end of each shift.

Every entry from which rooms are driven shall be provided with a separate entry as an air course, *but the inspector may allow rooms to be driven from the air course entry after all rooms have been finished on the other entry* .

The height of the traveling way shall not be less than five feet and the width shall not be less than six feet. All traveling ways shall be well drained, kept free from refuse of all kinds and free from smoke, noxious gases, and electric wires, unless said wires are so placed and protected as not to endanger life and are kept in safe condition.

Section 5. In every slope with workings on both sides an overcast or an undercast, not less than five feet wide and five feet high, shall be provided as a passage way for the use of the employes to cross from one side of slope to the other. Said overcast or undercast shall connect with available passageways leading to the workings on both sides of said slope. The intervening strata between the slope and the overcast or undercast shall be of sufficient strength at all points to insure safety to the employes: Provided, however, That if it is impracticable to drive an overcast or an undercast in the solid,

an overcast or an undercast may be substantially built with masonry or other incombustible material.

Section 6. When the opening or outlet other than the main opening is a shaft not more than one hundred feet in depth and is used by employes for the purpose of ingress to or egress from the mine, it shall be kept available and in safe condition, free from steam, dangerous gases and all obstructions, and shall be fitted with safe and convenient stairways with steps of an average tread of ten inches and a rise of nine inches, not less than two feet in width and not to exceed an angle of forty-five degrees, with landings not less than twenty-four inches in width and four feet in length, at easy and convenient distances. These stairways shall be made safe by having hand rails of suitable material placed on one side, or on both sides when requested by the inspector, and shall be inspected every twenty-four hours by a competent person employed for that purpose. Water that may come from the surface or from the strata in the shaft shall be conducted away so that it will not run or drop on the stairways or on persons while descending or ascending them.

Section 7. After the passage of this act when a mine is operated by a shaft more than one hundred feet in depth, the persons employed therein shall be lowered and hoisted by means of machinery, unless the second opening is a drift or a slope. When the employes are lowered into and hoisted from the mine at the main shaft opening, the second opening, if a shaft, shall also be supplied with a stairway constructed in the manner hereinbefore designated in section six of this article, or with safe and suitable machinery for the lowering and hoisting of persons in case of an emergency.

Section 8. At any mine where one of the openings hereinbefore required is a slope and is used as a means of ingress and egress by the employes and where the angle of descent exceeds fifteen degrees and the length from the mouth of the opening exceeds one thousand feet, the employes shall be lowered into and hoisted from the mine at the beginning and end of each shift at a speed not to exceed eight miles per hour. In every slope where the angle of descent is less than fifteen degrees and where the length of the slope exceeds three thousand feet, the employes shall be lowered into and hoisted from the mine at the beginning and end of each shift at a speed not to exceed eight miles per hour.

ARTICLE III

Signaling Apparatus, Safety Catches, Hoisting Machinery, Ropes

Section 1. The operator or the superintendent shall provide and hereafter maintain in good condition from the top to the bottom of every shaft or slope, where persons or material are lowered or hoisted, a telephone or metal tube of proper diameter suitably adapted to the free passage of sound, through which conversation may be held and understood between persons at the top and the bottom of said shaft or slope, and he shall also provide means of signaling from the top to the bottom and from the bottom to the top of said shaft or slope. The same provisions shall apply to inside planes whereon coal is lowered and persons have to travel. In all gaseous mines telephone

connections shall be made from the surface to the main section of the mine. All signaling apparatus and telephone connections shall be kept in good condition and shall be always available for service.

The operator or the superintendent shall also provide every cage used for lowering or hoisting persons with hand rails at sides and with chain bar or gate at ends, and with a sufficient covering overhead to protect persons thereon, and shall also provide for each said cage efficient safety catches, which shall be tested once every two weeks, and a record of each test shall be sent to the inspector and to the superintendent and also recorded with ink in a book kept at the mine office for that purpose. The ropes shall be securely attached to the sides of the drum of every machine that is used for lowering and hoisting persons or material into and out of the mine, and the flanges shall have a clearance of not less than four inches when the whole of the rope is wound on the drum, and adequate brakes shall be attached to the drum, so that the speed thereof can be controlled when men are being lowered or hoisted. An efficient indicator that shall show the position of the cages in the shaft shall be attached to the hoisting apparatus.

All shafts shall be provided with safety gates at the top and intermediate landings, said gates to be approved by the inspector.

Section 2. The main coupling chain attached to the socket of the wire rope of every shaft shall be made of the best quality of iron and shall be tested by weights or otherwise to the satisfaction of the superintendent, the manner of testing and the result obtained to be entered in a book with ink with the day and date of the inspection; and bridle chains of the same quality of iron shall be attached to the main hoisting rope three feet above the socket from the top cross-piece of the cage, so that no single chain shall be used for lowering or hoisting persons into or out of the mine.

Section 3. In shafts where coal is hoisted and employes lowered into or hoisted from the mine the ropes, links and chains shall be of ample strength, with a factor of safety of not less than five to one of the maximum load. In shafts used exclusively for lowering or hoisting employes and material the factor of safety of ropes, links and chains shall be not less than ten to one of the maximum load. All such ropes, links and chains shall be carefully examined at least once every twenty-four hours by a competent person delegated for that purpose by the superintendent, and any defect therein found by which life and limb may be endangered shall be reported at once in writing to the superintendent, who shall immediately proceed to remedy the defect, and until that is accomplished he shall prohibit any person from being lowered into or hoisted from the mine by the defective apparatus. The person making said examination shall keep a daily record of each inspection in ink in a book kept at the mine office for that purpose, and he shall send a copy thereof each day to the superintendent.

Section 4. All machinery in and about the mines from which any accident would be liable to occur shall be properly fenced off by suitable guard railing.

Section 5. No greater number of persons shall be lowered or hoisted at any one time than may be permitted by the inspector, and notice of the number so allowed to be lowered or hoisted at any one time shall be kept posted by the operator or the superintendent in

conspicuous places at the top and the bottom of the shaft. The aforesaid notice shall be signed by the inspector. The speed of the cage when lowering or hoisting persons shall not exceed nine hundred feet a minute.

ARTICLE IV

Duties of Fire Boss. Safety Lamps

Section 1. In every mine wherein explosive gas was generated before the passage of this act, or shall be generated after the passage of this act, in sufficient quantities to be detected by an approved safety lamp, a fire boss or fire bosses shall be employed by the mine foreman. The fire boss shall have received a certificate of qualification from the Department of Mines on the recommendation of the Examining Board, as provided for in section four, article twenty, of this act. It shall be the duty of the fire boss to examine carefully before each shift enters the mine every working place without exception, every roadway and every accessible road to abandoned workings and falls in the mine; but before proceeding with the examination he shall see that the air current is traveling in its proper course. In making the examination he shall use no light other than that enclosed in an approved safety lamp. The examination shall begin within the shortest possible period of time necessary for its completion before the regular time appointed to commence work, but in no case shall it begin more than three hours prior to the appointed time for each shift of miners or loaders to commence work. The period of three hours shall be computed from the time the fire boss commences his examination until he returns to the station provided in the mine or on the surface. The fire boss shall examine for all dangers in all parts of the mine under his charge, and after each examination he shall leave at the face and side of every place examined the date of the examination as evidence that he has performed his duty. He shall also examine the entrance or entrances to all worked-out and abandoned parts adjacent to the roadways and working places under his charge where explosive gas is likely to accumulate, and he shall place a danger signal across the entrance to every working place and every other place where explosive gas is discovered or where immediate danger is found to exist from any other cause, and said signal shall be sufficient warning for persons not to enter. The meaning of all danger signals shall be explained to the non-English-speaking employes of the mine in their several languages by the mine foreman, assistant mine foreman or fire boss, through an interpreter.

Section 2. A suitable record book shall be kept at the mine office on the surface of every mine wherein explosive gas is generated, and immediately after the examination of the different sections of the mine by the fire bosses the record of the examination shall be entered in said book with ink and signed by the persons that made the examination. This record shall show the time taken in making the examination and also clearly state the nature and location of any danger that may have been discovered in any room or entry or other place in the mine, and if any danger or dangers have been discovered, the fire bosses shall immediately report the location thereof to the mine foreman, who shall remove said dangers forthwith, if practicable. If that cannot be accomplished, the mine foreman shall

notify every person who may be endangered thereby not to enter his working place. No person shall enter the mine until the fire bosses return to the mine office on the surface, or to a station located in the intake entry of the mine (where a record book as provided for in this section shall be kept and signed by the person making the examination) and report to the mine foreman or the assistant mine foreman that the mine is in safe condition for the men to enter. Where a station is located in any mine it shall be the duty of the fire bosses to sign also the report entered in the record book in the mine office on the surface: Provided, however, That no person shall enter a mine generating explosive gas until the fire bosses return to the surface and report to the mine foreman, or until they have notified the mine foreman by telephone or otherwise that the mine is safe.

The record books of the fire bosses shall at all times be accessible to the inspector and the employes of the mine.

Section 3. A second examination by the same or other fire bosses shall be made during working hours of every working place and every roadway in the same manner as the first examination, and the record of the second examination shall be entered in the record book in the same manner as the record of the first examination was entered, and signed by the persons that made the examination.

Section 4. The mine foreman and the fire boss shall at or near the main entrance to the mine provide a permanent station with a proper danger signal designated by suitable letters and colors placed thereon. In every mine generating explosive gas, when the working sections are one mile or more from the entrance to the mine or from the bottom of the shaft or slope, a permanent station of suitable dimensions may be erected by the mine foreman (provided the location is approved by the inspector) for the use of the fire bosses, and in the said station a fire-proof vault of ample strength shall be erected of brick, stone or concrete, in which the record book of the fire bosses as described in section two of this article shall be kept at all times. It shall not be lawful for any person except the mine foreman in case of necessity (and such other persons as may be designated by him) to pass beyond said permanent station and danger signal until the mine has been examined by a fire boss as provided for in section one of this article and the mine or certain parts thereof reported by him to be safe. The fire boss shall not allow any person to enter or remain in any part of the mine through which a dangerous accumulation of gas is being passed in the ventilating current from any other part of the mine. He shall report at once any violation of this article to the mine foreman.

Section 5. Any employe or other person except those hereinbefore provided for who passes by any danger signal into the mine or into any part of the mine before the mine has been examined and reported to be safe, or any employe or any other person who passes by any danger signal placed at the entrance to a working place or any other place in the mine without permission from the mine foreman, the assistant mine foreman or the fire boss, shall be deemed guilty of a misdemeanor and it shall be the duty of the mine foreman, after the case has been reported to him, to notify the inspector of the violation, and the inspector shall forthwith enter proceedings against such persons as provided for in section two of article twenty-six of this act.

Any mine foreman who fails to notify the inspector forthwith of any violation of the provisions of this article that has been reported to him shall be deemed guilty of a misdemeanor.

Section 6. When a fire boss cannot properly examine all the working places within the section of the mine allotted to him within the time specified in section one of this article, he shall notify the mine foreman of the fact in writing giving his reasons.

Any fire boss who neglects to comply fully with the provisions of this article relating to his duties, or who shall make a false report of the condition of any place in the section of the mine allotted to him for examination, shall be deemed guilty of a misdemeanor and shall be suspended, and his name shall be given to the inspector for prosecution. If he is found guilty, he shall return his certificate of qualification as fire boss to the Department of Mines: Provided, however, That he may again be an applicant for a certificate as fire boss at any regular examination after the expiration of six months; but if he is found guilty of a second offence he shall return his certificate to the Department of Mines and cannot be an applicant for re-examination.

Section 7. Whenever safety lamps are used by fire bosses or other persons, they shall be so constructed that they may be safely carried against the air current ordinarily prevailing in that part of the mine in which the lamps are being used.

Section 8. All safety lamps used for examining mines or for working therein shall be the property of the operator and shall be in the care of the mine foreman, assistant mine foreman, fire boss, or some other competent person appointed by the mine foreman, whose duty it shall be to clean, fill, trim, examine, light and deliver them locked and in a safe condition to the men when entering the mine and to receive the lamps from the men when returning from work, for which services a charge not exceeding the cost of labor and material may be made by the operator. At any mine wherein explosive gas was generated before the passage of this act in sufficient quantities to be detected by an approved safety lamp, a sufficient number of safety lamps, not less than one-fourth of the number in use, shall be kept in a convenient place and in good condition for use in case of emergency. It shall be the duty of every person who knows that his safety lamp is injured or defective to return it immediately and report such fact to the person authorized to receive and care for said lamp, who shall report the matter to the mine foreman, assistant mine foreman or fire boss as soon as practicable.

Section 9. Nothing in this article shall prevent a first grade mine foreman or a first grade assistant mine foreman from acting as fire boss.

ARTICLE V

Mine Foreman and His Duties

Section 1. In order to secure efficient management and proper ventilation of the mines, to promote the health and safety of the persons employed therein, and to protect and preserve the property connected therewith, the operator or the superintendent shall employ a competent and practical mine foreman for every mine where ten or more persons are employed. The mine foreman shall have full

charge of all the inside workings and of the persons employed therein and shall see that all the provisions of this act are complied with, so far as his duties are concerned, and that the regulations prescribed for each class of workmen under his charge are carried out in the strictest manner possible. If the mine is gaseous, the mine foreman must possess a first grade mine foreman's certificate. If the mine is non-gaseous, the mine foreman must possess either a first grade mine foreman's certificate or a second grade mine foreman's certificate.

When the mine workings become so extensive that the mine foreman is unable personally to carry out the requirements of this act pertaining to his duties, he shall have the right to employ a sufficient number of competent persons to act as his assistants, who shall act under his instructions in carrying out the provisions of this act. If the mine is gaseous the mine foreman's assistants must possess first grade assistant mine foremen's certificates.

In case of the necessary temporary absence of the mine foreman, he may deputize his work for the time being to his assistant, who shall perform all the duties of the mine foreman.

Section 2. The mine foreman shall devote the whole of his time to his duties in the mine when the mine is in operation, and shall keep a careful watch over the ventilating apparatus, the ventilation, airways, traveling ways, timbering and drainage, and shall see that all stoppings along airways are properly built as provided for in section five of article seven of this act.

He shall also see that proper cut-throughs are made in the pillars of all rooms and of all entries in accordance with section three of article seven of this act, and that they are closed when necessary, so that the ventilating current can be conducted in sufficient quantity through the last cut-through to the face of each room and entry by means of check doors. He shall not permit any room or entry to be opened in advance of the ventilating current or in advance of the last cut-through in the entry, excepting room necks, which may by the consent of the inspector be opened by entrymen driving entries.

Section 3. The mine foreman shall at least once every week measure the air current at or near the main inlet and outlet airway and also in the last cut-through in the last room and in the first entry cut-through beyond the last room turned in each entry, and make a record of said measurements as provided for in section eighteen of this article. For making said measurements an anemometer shall be provided and kept in good condition by the superintendent of the mine.

Section 4. In case of accident to a ventilating fan or its machinery, whereby the ventilation of the mine would be seriously interrupted, the mine foreman shall order the men to withdraw immediately from the mine and he shall not allow them to return to their work until the ventilation has been restored and the mine has been thoroughly examined by him, an assistant mine foreman or fire boss, and reported safe.

Section 5. The mine foreman shall notify the superintendent and the inspector in writing whenever in his opinion the mine is becoming dangerous through the lack of ample ventilation at the face of entries, rooms and other portions of the mine, caused by the undue length of entries and airways or from any other cause, resulting in

the accumulation of gas or coal dust, or both, in various sections of the mine. The superintendent and the inspector shall then make a thorough personal inspection of said mine and if they find that the mine is becoming dangerous the superintendent shall at once proceed to have the mine put in safe condition and, if necessary, have an additional opening of ample dimensions sunk from the surface to the interior of the mine, which opening can be used as an outlet or inlet for the air and also as an escapeway in case of necessity.

In all gaseous mines the mine foreman shall see that when the permanent station of the fire boss is located a mile or more from the entrance to the mine, all abandoned, finished or unfinished workings in the intervening distance between the permanent station and the entrance to the mine are completely shut off from the main intake outlet or manway headings of the mine by stoppings of masonry, concrete, or some other incombustible material of sufficient thickness to keep the explosive or noxious gases from coming in contact with the intake air or with the persons employed therein.

Section 6. The mine foreman shall direct and see that every working place is properly secured by props or timbers, and shall see that no person is directed or permittted to work in an unsafe place, unless it be for the purpose of making it safe. He shall also see that the workmen are provided with sufficient props, cap pieces and timbers of suitable size, which shall be delivered at the working faces or as near as they can be conveyed in mine cars, when requested by the workmen in accordance with section seven of this article. He shall also see that props are cut square at both ends and as near as practicable to the proper length as given for the places where they are to be used.

Section 7. Every workman in need of props, cap pieces and timbers shall notify the mine foreman or the assistant mine foreman of the fact at least one day in advance, giving the number, size and length of props, cap pieces and timbers required. In case of emergency the timber may be ordered immediately upon the discovery of danger. If for any reason the necessary timbers cannot be supplied when required, the mine foreman or assistant mine foreman shall instruct the workmen to vacate the place until the timber needed is supplied.

The place and manner of leaving the orders for props, cap pieces and timbers shall be designated and specified in the rules of the mine.

Section 8. The mine foreman shall see that on all hauling roads on which hauling is done by animal power, holes for shelter shall be cut into the strata not less than two and one-half feet deep and four feet wide and level with the road, at least every thirty yards, and kept whitewashed and clear of obstruction. But shelter holes shall not be required in entries from which rooms are driven at regular intervals not exceeding ninety feet, provided that the entrance to each room be kept clear of obstruction for a distance of three feet. On all hauling roads on which hauling is done by machinery, shelter holes shall be cut into the strata not less than two and one-half feet deep and at least four feet wide and level with the road and not more than fifteen yards apart, and said shelter holes shall be kept whitewashed and clear of obstruction. All shelter holes shall be made on the same side of the entry. All entries driven after the

passage of this act shall have a clear space of two and one-half feet from the side of the car to the rib, which shall be made and continued throughout on one side of the entry and kept clear of obstruction, so that the lives of the drivers and runners may not be endangered. No persons except officials or repairmen shall be permitted to travel on slopes, gravity or incline planes while the cars thereon are in motion.

The mine foreman shall see that the entries at such places where the road grades necessitate sprags or brakes to be applied or removed shall have a width clear of refuse of not less than three feet between the top side of the car and the rib, which shall be kept whitewashed and clear of all obstruction, to allow the driver or the trip-rider to pass his trip safely and keep clear of the cars: Provided, That this requirement shall not apply to any parts of mines opened prior to the passage of this act, if deemed impracticable by the inspector.

Section 9. The mine foreman shall direct and see that the coal is properly mined before it is blasted. "Properly mined" shall mean that the coal may be undercut, center-cut, top-cut or sheared by pick or machine. In mines generating explosive gas, when the coal seam is five feet six inches or more in thickness, "properly mined" shall mean that in all entries *and narrow work* less than *ten* feet wide *wherein the coal is undercut it* shall also be sheared on one side as deep as the undercutting before any holes are charged and fired. He shall also direct that the miner set sprags as often as necessary, at a distance not exceeding seven feet apart, under the breast of undermined or center-mined coal for safety. The mine foreman shall direct at what hours blasting shall be done in the mine and a notice of the time shall be posted at a conspicuous place at the mine, and a copy of the notice shall be kept on file at the mine office: Provided, however, That in mines in which locked safety lamps are used exclusively the mine foreman shall direct that all holes be fired according to the provisions of section fourteen of this article. The mine foreman shall direct and see that the pillars are properly mined by hand pick mining wherever the roof is considered by him to be dangerous.

In every dusty and gaseous mine the mine foreman shall direct and see that the rooms and entries are thoroughly sprinkled with water as often as necessary to keep the dust in damp condition, and he shall direct and see that the dust is loaded and taken out of the mine at least once each week.

The mine foreman shall direct and see that as the miners advance in their excavation all dangerous and doubtful pieces of coal, slate and rock overhead are taken down or at once carefully secured against falling on the workmen. Any workman who neglects to carry out or disobeys the instructions of the mine foreman or his assistant in regard to securing his working place shall be discharged by the mine foreman, and if such negligence or disobedience results in serious injury or loss of life, the mine foreman shall give the name of said workman to the inspector for prosecution in accordance with section two, article twenty-six, of this act.

Section 10. The mine foreman shall give prompt attention to the removal of all dangers reported to him by his assistants, the fire boss or by any other person working in the mine, and he or his assistant

shall once each week travel and examine all the air courses and roads and all the openings that give access to old workings or falls, and make a record of the condition of all places where danger has been found, with ink, in the book provided for that purpose.

In all mines the mine foreman shall employ a sufficient number of assistants to insure a visit to each working place either by himself or by his assistants once each day while the employes are at work, and in addition thereto shall give special care, oversight and attention to the men drawing pillars, particularly when falls are being made. The mine foreman or the assistant mine foreman under instructions from the mine foreman, shall direct that the holes for blasting be properly placed, and shall designate the angle and depth of holes, which shall not be deeper than the undercutting, center-cutting, top-cutting or shearing, and the quantity of explosives required for each hole, and the method of charging and tamping. Instructions shall be given the men by the mine foreman or the assistant mine foreman when, where and how timber shall be placed so as to avoid accidents from falls and also in a general way how to mine coal with safety to themselves and others.

At the end of each shift each assistant mine foreman shall make a report in a book provided for that purpose, giving the general condition of the working places as to safety and shall make a note of any unusual occurrence observed by him during the day. The mine foreman shall read carefully the daily report of each assistant mine foreman and shall sign the reports with ink not later than the day following.

Section 11. Every mine generating explosive gas shall be kept free of standing gas in all working places and roadways. Any accumulation of explosive gas or noxious gases in the worked-out or abandoned parts of any mine shall be removed as soon as possible after its discovery, if it is practicable to remove it. No person who may be endangered, by the presence of said explosive gas or noxious gases shall be allowed in that part of the mine until said gases have been removed. The mine foreman shall direct and see that all dangerous places and the entrance or entrances to worked-out and abandoned places in a gaseous mine are properly fenced off across the openings so that no person can enter, and that danger signals are posted upon said fencing to warn persons of the existing danger.

Section 12. In any mine where it has been found impracticable to remove explosive gas from the inaccessible top of a fall, it shall be the duty of the mine foreman to make this fact known at once in writing to the superintendent, who shall immediately make a personal investigation of the matter. If the superintendent is unable to have said explosive gas removed within reasonable time, he shall order that a bore hole or bore holes, not less than six inches in diameter, be drilled from the surface to a high point on said fall in order to give the gas an opening to escape to the surface. If the said body of gas cannot be removed, the superintendent shall at once instruct the mine foreman to have said gas sealed up by the erection of a wall or walls of sufficient thickness and of incombustible material to prevent the gas from said inaccessible top of a fall escaping into the atmosphere of the mine.

Section 13. In every gaseous mine where coal dust is carried in the atmosphere of the mine in dangerous quantities the mine foreman

shall see that no person is employed to work in the mine until he has given satisfactory proof that he can do the work allotted to him without endangering the lives of his co-employes, unless said person is put to work with an experienced miner.

Section 14. In every dusty mine and in every mine generating explosive gas, in which locked safety lamps are used exclusively, the mine foreman shall employ a sufficient number of competent persons to be known as shot firers. The duty of said shot firers shall be to charge, tamp and fire all holes properly placed by the miners, and to refuse to charge any holes not properly placed. No holes shall be fired by any person other than a shot firer. They shall use none but incombustible material for tamping, which the mine foreman shall see is provided for them at convenient places inside the mine. Under no condition shall the shot firer use coal dust or any other combustible material for tamping. All such holes shall be fired by an electric apparatus. Each shot firer shall keep a record of and report to the mine foreman every hole that he has refused to charge, every blown-out shot and every hole that has misfired.

All holes shall be charged, tamped and fired when the workmen are out of the mine, except the shot-firers and other persons delegated by the mine foreman to safeguard property.

No shot-firer shall fire a shot in any working place if his safety lamp can detect explosive gas at the roof. In dusty mines in which locked safety lamps are used exclusively no holes shall be fired unless the entries are so thoroughly wetted as to prevent the existence of any dry dust for a distance of not less than two hundred feet from the hole to be fired.

Section 15. When operations are temporarily suspended in a mine, the superintendent and the mine foreman shall see that danger signals are placed across the mine entrances, which signals shall be sufficient warning for persons not to enter the mine. If the circulation of air through the mine be stopped, each entrance to said mine shall be securely fenced off and a danger signal displayed upon said fence at each entrance.

Section 16. The mine foreman shall see that all working places are kept as free from water as practicable during working hours.

Section 17. In any working place that is being driven within supposedly dangerous proximity to an abandoned mine or part of an abandoned mine suspected of containing explosive gas or that may contain a dangerous accumulation of water, at least two bore holes shall be maintained not less than twelve feet in advance of the face, and on each side of such working place bore holes of the same depth shall be drilled diagonally not more than eight feet apart, and any place driven to tap water or gas shall not be more than eight feet wide. No water or gas from an abandoned mine or parts of an abandoned mine, and no bore hole from the surface shall be tapped until the employes, except those engaged at such work, are out of the mine, and such work shall be done under the immediate instruction and direction of the mine foreman, with the use of locked safety lamps.

Section 18. The mine foreman shall each day enter plainly and sign with ink in a book provided for that purpose a report of the condition of the mine, which report shall clearly state any danger that may have come under his observation during the day or any

danger reported to him by his assistants, the fire boss, or by others. The report shall also state whether or not there is a proper supply of material on hand for the safe working of the mine, and whether or not the requirements of the law are complied with. He shall also once each week enter plainly with ink in said book a true report of all air measurements required by this act, designating the place, the area of each cut-through separately, the velocity of the air in each cut-through, and the number of men employed in each separate split of air, with the date when measurements were taken. Said book shall at all times be kept in the mine office at the mine for examination by the inspector and by any person working in the mine, in the presence of the mine foreman.

The mine foreman shall also each day read carefully and countersign with ink all reports entered in the record book of the fire boss.

Section 19. The mine foreman shall once each week on blank forms provided for that purpose report to the inspector all fatal and serious accidents that have occurred in or about the mines, giving the age, nationality and occupation of the injured persons, together with facts as to the families or dependents affected.

Section 20. The mine foreman shall employ a sufficient number of fire bosses in order that each mine can be examined in accordance with the provisions of sections one, two and three of article four of this act. The mine foreman or the assistant mine foreman shall see as often as practicable that the fire boss has left his mark in places examined or reported as examined.

The mine foreman or the assistant mine foreman shall distribute a sufficient number of danger signals at convenient places in each entry in the mine for the use of the fire bosses whenever it becomes necessary to warn employes to keep out of dangerous parts of the workings.

Section 21. The mine foreman shall direct and see that safety blocks or some other device are constructed for the purpose of preventing cars from falling into the shaft or slope or running away on slopes and incline planes, and safety switches, drop logs or other devices shall be used on all slopes and incline planes, and the mine foreman shall see that said safety blocks, safety switches or other devices are maintained in good working order.

Section 22. It shall be the duty of the mine foreman to see that locked safety lamps are used when and where required by this act.

The transportation of tools in and out of the mine shall be under the direction of the mine foreman.

Section 23. It shall be the duty of the mine foreman to report immediately all the violations of this act to the inspector.

Section 24. Where one or more assistant mine foremen are employed they shall perform the duties of the mine foreman and shall be liable to the same penalties for a violation of this act.

ARTICLE VI

Duties of Mine Superintendent. Mine Supplies

Section 1. It shall be the duty of every superintendent, on behalf and at the expense of the operator, to keep on hand at each mine at all times a sufficient quantity of all materials and supplies required

to preserve the health and safety of the employes, especially the supplies ordered by the mine foreman and required by this act. If for any reason the superintendent cannot procure the necessary materials or supplies, as aforesaid, he shall at once notify the mine foreman, whose duty it shall be to withdraw the men from the mine or part of mine until such materials or supplies are received.

The superintendent shall at least once every week read, examine carefully and countersign all reports entered in the mine record book by the mine foreman, and if he finds that the law is being violated in any particular he shall order the mine foreman to stop said violation forthwith.

Section 2. The superintendent shall not obstruct the mine foreman or other officials in the fulfillment of any of their duties as required by this act, but he shall direct that the mine foreman and all the other employes under him comply with the law in all its provisions, especially when his attention is called by the inspector to any violation of the law. At any mine where a superintendent is not employed, the duties that are herein prescribed for the superintendent shall devolve upon the mine foreman in addition to his regular duties.

Section 3. The superintendent of every mine shall provide a sufficient number of danger signals, upon request of the mine foreman, which the mine foreman or the assistant mine foreman shall distribute in the mine at places convenient for the use of the fire bosses in the fulfillment of their duties. Danger signals in all mines shall be uniform and of a design approved by the Chief of the Department of Mines. All danger signals shall be kept in good condition and no defective signal shall be allowed to remain in any mine.

Section 4. The superintendent shall keep on hand at the mine a supply of the printed rules and notices and record books required by this act, which shall be furnished through the inspector of the district on request of the superintendent in writing. The superintendent shall see that said rules and notices and record books are delivered to the proper persons at the mine and that they are properly cared for, and he shall also see that the rules and notices are posted in conspicuous places at or near the entrance to the mine and kept in such condition that they will always be legible.

Section 5. The superintendent shall not permit the mining of coal within fifty feet of any abandoned mine containing a dangerous accumulation of water, until said danger has been removed by driving a passageway to tap and drain off said water, as provided for in this act: Provided, That the thickness of the barrier pillars shall be greater and shall be in proportion of one foot of pillar thickness to each one and one-quarter feet of water-head, if in the judgment of the engineer of the property and that of the district inspector it is necessary for the safety of the persons working in the mine.

Section 6. The superintendent shall provide a safety catch or other device to be placed on the rear car of full trips that are being hoisted up slopes, except where an approved hoisting apparatus makes the safety catch unnecessary, and he shall also provide suitable signals to be placed on the rear end of the rear car of all trips hauled by locomotives of any kind in the mine.

Section 7. If either the mine foreman or the fire boss neglects his duties or incapacitates himself by drunkenness or is incapaci-

tated by any other cause for the proper performance of his duties, and information thereof shall be brought to the knowledge of the superintendent, it shall be the duty of the superintendent to make a thorough investigation of the case, and, if he finds evidence to sustain the charge, he shall inform the inspector, who shall inform the court of common pleas of the county or a judge thereof by petition, and said court, or judge when the court is not in session, shall issue a citation in the name of the Commonwealth to the said mine foreman or fire boss to appear at not less than five days' notice, upon a day fixed, before said court or a judge thereof, at which time the court shall proceed to inquire into and investigate the allegations. If the court finds the allegations to be true, it shall notify the Department of Mines of such finding and instruct said Department to withdraw the certificate of said delinquent: Provided, however, That he shall have the right to appear before the Examining Board and be re-examined, and if he can satisfy the Board that he has reformed and passes a satisfactory examination, he shall be given another certificate of qualification. When the court orders the certificate of a mine foreman or a fire boss to be withdrawn, the inspector shall notify the operators of the district of the fact.

Section 8. The operator or the superintendent of every mine shall within thirty days send to the inspector the following notices:

First. When a mine has been abandoned or the working thereof discontinued.

Second. When any work has commenced for the purpose of opening a new mine.

Third. When the working of a mine is resumed after an abandonment or discontinuance for a period exceeding two months.

Fourth. When any change occurs in the name of a mine or in the name of the operator of a mine under the provisions of this act.

ARTICLE VII

Ventilation

Section 1. The operator or the superintendent of every mine shall provide and maintain ample means of ventilation to furnish a constant and adequate supply of pure air for the employes. In a non-gaseous mine the minimum quantity of air shall not be less than one hundred and fifty cubic feet per minute for each person employed. In a mine generating explosive gas in such quantities that it can be detected by an approved safety lamp, the minimum quantity of air shall not be less than two hundred and fifty cubic feet per minute for each person employed. The quantity of air demanded in the various mines shall be computed by actual measurements taken in the first entry cut-through beyond the last room turned in the entry or entries. The return air from each split where from sixty to eighty-five persons are employed shall be conducted by an overcast or an undercast into the return airway, which shall lead to the main outlet.

If, after the inspection of any mine, the inspector is of the opinion that more air is necessary than is provided for in this section to insure the health and safety of the employes, it shall be his duty to demand as much more air as may be necessary: Provided, however,

that in case of difference of opinion between the inspector and the mine foreman as to the quantity of air necessary, the inspector shall refer the matter to the Chief of the Department of Mines, who shall at once order two or more inspectors to accompany the inspector of the district to make further inspection of said mine, and if the said inspectors shall be agreed in the opinion that the additional quantity of air is necessary to insure the health and safety of the employes, they shall notify the superintendent of the mine of that fact in writing, and the decision of the inspectors shall be final unless the said superintendent or inspector shall within seven days from the date thereof appeal from such decision to the *court of quarter sessions. If such an appeal shall be taken, like proceedings shall be taken as are provided in case of an appeal to the court under section three of article eight.*

The ventilation shall be conducted through the main entries, cross entries and to the working faces of all working places in the mine in sufficient quantities to dilute, carry off and render harmless the smoke and the noxious and dangerous gases generated therein, to such an extent that all working places and traveling roads shall be in a safe and healthy condition for the persons working and traveling therein.

No permanent door shall be erected or allowed to remain in the main entry in any mine, *unless its removal shall be deemed impracticable by the inspector.*

Section 2. Where five or more persons are employed at any one time in a mine it shall be the duty of the operator or the superintendent to provide a fan or a furnace of ample power to ventilate the mine according to the requirements of section one of this article: Provided, That it shall not be lawful to use a furnace for ventilating any mine wherein explosive gas is being generated.

Six months after the passage of this act not more than sixty persons shall be permitted to work in the same continuous air current, unless in the judgment of the inspector of the district and of two other inspectors it is impracticable to comply with this requirement; in which case a larger number, not exceeding eighty-five persons, may be permitted to work therein.

Section 3. The first cut-through in the first room in any entry shall not be more than fifty feet from the rib of the entry; the first cut-through in the second room shall not be more than eighty feet from the rib of the entry; and subsequent first cut-throughs in all the rooms shall not be more than fifty and eighty feet, respectively, from the rib of the entry. Additional cut-throughs shall not be more than sixty feet apart. This rule for distances of cut-throughs shall not be changed except with the consent of the inspector of the district.

Doors, check doors or brattices, made of boards, canvas, brattice cloth or any other suitable material, shall be erected at points where needed, so as to force the air current to the working faces of all rooms and entries.

Section 4. The quantity of air passing a given point shall be ascertained by an anemometer, the measurements to be taken by the mine foreman once every week at or near the main inlet and outlet airway in the mine and at the last cut-through in the last room and

at the first entry cut-through beyond the last room turned in each entry. Said measurements shall be taken on days when the men are at work.

Section 5. In all mines all stoppings in cut-throughs between the main intake and return airways shall be substantially built of masonry, concrete or other incombustible material and shall be of ample strength; and in gaseous mines all new stoppings and renewals of old stoppings in cross entries shall be built of masonry, concrete or other incombustible material. Stoppings in cross entries in non-gaseous mines may be built of timber. All stoppings shall be kept in good condition, so as to keep the air up to the working faces. Temporary stoppings shall be erected in cut-throughs in rooms to conduct the ventilation to the face of each room.

Section 6. Every ventilating fan at non-gaseous mines shall be kept in operation continuously day and night, unless operations are indefinitely suspended, except when written permission is given by the inspector to stop it. The said permission or a copy thereof shall be posted by the mine foreman in a conspicuous place at the entrance or entrances to the mine and shall state the particular hours the fan may be stopped. The inspector shall have the power to withdraw or modify such permission at any time and in any manner he may deem best. In all cases, however, the fan shall be started three hours before the time to begin work. Every ventilating fan at gaseous mines shall be kept in operation continuously day and night, unless operations are indefinitely suspended, except when written permission is given by the inspector to stop it. The said permission shall be in the form of a printed notice stating at what hours the fan will be stopped and the time it will again be set in motion. Said notice shall be posted by the mine foreman in a conspicuous place at the entrance to the mine: Provided, That should it at any time become necessary to stop a fan on account of accident to part of the machinery connected therewith, or by reason of any other unavoidable cause, it shall then be the duty of the mine foreman or the assistant mine foreman in charge, after first having provided for the safety of the persons employed in the mine, to order said fan stopped for necessary repairs.

Every ventilating fan shall be provided with a recording instrument by which the number of revolutions or the effective ventilating pressure of the fan shall be registered for each hour, and the registration for each day, with the date thereof, shall be kept in the office at the mine for future reference for one year.

No main or principal ventilating fan shall be placed inside of any mine. No auxiliary fan, unless driven by electricity or compressed air, shall be placed in any mine. If the fan be electrically driven, the motor shall be placed in the intake airway.

Every ventilating furnace in a mine shall be properly attended to and operated by a competent person employed by the mine foreman for that purpose for three hours before the appointed time to begin work and constantly thereafter during working hours.

Section 7. In every mine generating explosive gas in sufficient quantities to be detected by an approved safety lamp, all air bridges, overcasts or undercasts shall be substantially built of masonry, concrete or other incombustible material of ample strength, or shall be driven through the solid strata. It shall be the duty of the mine

foreman to see that these bridges are properly built and are of ample strength.

Section 8. In every mine the doors used for guiding and directing the ventilation shall be so hung and adjusted that they will close of themselves, or shall be supplied with springs or pulleys so that they cannot remain open. All principal doors shall be so placed that when one door is open another, which has the same effect upon the same current, shall be closed and remain closed to prevent any stoppage of the air current. An attendant shall be employed at each principal door (that is, the door that controls the main air current in the entries) through which cars are hauled for the purpose of opening and closing it for the employes and cars to pass in and out from the workings, unless a self-acting door, approved by the inspector, is used. A hole for shelter shall be provided at each door to protect the attendant from danger from cars while performing his duties. Persons employed for this purpose shall remain at the doors at all times during working hours: Provided, That the same attendant may attend two doors where the distance between the two doors is not more than one hundred feet, if his absence from the first door does not endanger the safety of the employes. In all gaseous mines attendants shall not leave their doors at quitting time until they are notified by the mine foreman, or by some person designated by him, that all the employes in the section of the mine in which they are employed have left their work. At every door on any incline plane or road whereon haulage is done by machinery, an attendant shall always be on duty during working hours, and at every door on said plane or road an extra door shall be provided for use in case of necessity. Wherever a principal door is placed an extra door shall also be provided to be used in case of necessity.

Section 9. No product of petroleum or alcohol or any compound that in the opinion of the inspector will contaminate the air to such an extent as to be injurious to the health of the miner, shall be used as motive power in any mine.

ARTICLE VIII

Locked Safety Lamps and Open Lights; Defining When Either or Both Can Be Used

Section 1. The use of open lights is prohibited in any entry, airway, traveling way, room or any other working place where explosive gas is being generated in such quantity as can be detected by an approved safety lamp, also in pillar workings where a sudden inflow of explosive gas is likely to be encountered, and all such places shall be worked exclusively with locked safety lamps. The use of open lights is also prohibited in all working places, roadways or other parts of the mine through which explosive gas might be carried in the air current in quantities indicating danger: Provided, however, that if the inspector is of the opinion that any mine or any section of any mine should be operated by the use of locked safety lamps exclusively, he shall have the right to petition the Chief of the Department of Mines in writing, setting forth such opinion and his reasons therefor. Whereupon the said Chief shall forthwith instruct two other inspectors to accompany the inspector of the district to make a

thorough examination of all workings of said mine, whether in active operation or not. The said committee of inspectors shall, within seven days of their appointment, make a report in writing to the Chief of the Department of Mines and to the superintendent, general manager, operator or owner of said mine, giving the conclusions arrived at with their reasons therefor, and the decision of said committee shall be final and conclusive, unless the superintendent, general manager, operator or owner shall within seven days of the date thereof appeal from such decision to the court of quarter sessions of the county in which the mine is located. If an appeal is made, the court shall then appoint two practical, reputable and competent persons, one of whom shall be recommended by the superintendent, general manager, operator or owner, and the other by the Chief of the Department of Mines, and the two persons thus recommended shall name a third person, who also must be practical, reputable and equally competent: *Provided, however, in case either or both of said persons are not recommended by a writing filed in said court within ten days after the appeal is filed, that then the said court shall fill the vacancy or vacancies by the appointment of a practical, reputable and competent person or persons; and in case the two persons thus chosen shall not agree in writing upon the third person of this committee within five days after they shall have received notice of their appointment, then the said court shall appoint the said third person on this committee.* The duty of this committee of three persons shall be, under the instruction of the court, to forthwith examine said mine or part thereof and report under oath within ten days after their appointment the facts as they exist or did exist, and their report shall be final and conclusive, unless exceptions thereto shall be filed by the superintendent, general manager, operator, owner or inspectors within seven days of the filing of the said committee's report. If exceptions are filed, the court shall at once hear and determine them.

Section 2. If the court finally sustains the decision of the inspectors, then the appellant shall pay all costs of such proceedings; but if the court shall sustain the decision of the committee named by the court, then all costs shall be paid by the county: Provided, however, that no appeal from any decision made by the committee of inspectors, which can be immediately complied with, shall work as a supersedeas to such decisions during the pendency of such appeal, but all decisions shall be in full force until reversed or modified by the court: Provided, further, that if the report of the committee named by the court favors the use of open lights in said mine or any part thereof, the inspector of the district shall have the right at the expiration of ninety days to request the Chief of the Department of Mines to appoint a committee of four other inspectors, if he, the inspector, is still of the opinion that the continued use of open lights is a menace to the lives of the employes and is endangering property. The said committee shall be appointed as the first committee of inspectors was appointed and shall examine into the matter in dispute and make a report in the same manner as the first committee, and said report shall be final and conclusive and shall be forthwith complied with and enforced by the superintendent and mine foreman, unless the superintendent, general manager, operator

or owner shall within seven days of the date thereof appeal from such decision to the court of quarter sessions of the county in which the mine is located.

Section 3. And in case of appeal the said court shall then appoint four practical, reputable and competent persons, two of whom shall be recommended by the Chief of the Department of Mines and two by the superintendent, general manager, operator or owner of the mine, and the four persons thus selected shall name the fifth person, who also must be practical, reputable and equally competent: *Provided, however, in case any or all of said four persons are not recommended by a writing filed in said court within ten days after the appeal is filed, that then the said court shall fill the vacancy or vacancies by the appointment of a practical, reputable and competent person or persons; and in case the four persons thus chosen shall not agree in writing upon the fifth person of this committee within five days after they shall have received notice of their appointment, then the said court shall appoint the said fifth person on this committee.* The duty of this committee of five persons shall be, under the instructions of said court, to forthwith examine said mine and report within ten days of their appointment, under oath, the facts as they exist or did exist, and the said report shall be absolute and final, unless exceptions thereto shall be filed by the superintendent, general manager, operator, owner or inspector within seven days after the filing thereof.

If exceptions are filed, the court shall at once hear and determine them: *Provided, that the superintendent, general manager, operator or owner of the mine or the inspector shall have the right to have the record and proceedings removed to the superior court for review by appeal or writ of error.*

The cost of such proceedings shall be paid as heretofore provided for in section two of this article.

Section 4. The use of open lights is strictly prohibited in any section of a mine that is ventilated by the same continuous air current that ventilates any other section in which locked safety lamps are used.

Section 5. If at any time one section of a mine is worked by the use of locked safety lamps while another section is worked by the use of open lights, the return air from the gaseous section shall be conducted directly into a return airway leading to the fan or to the outlet: Provided, that when a section of a mine is worked by the use of locked safety lamps, it shall be the duty of the mine foreman to provide a suitable danger station with an attendant on duty at all times during working hours, day and night, whose duty it shall be to see that the employes from the open light section are not allowed to enter the locked safety lamp section, unless they are provided with locked safety lamps by said attendant.

Section 6. The employes of a gaseous mine or any part thereof are strictly prohibited from traveling into or out of the mine in the return air current, if explosive gas can be detected by an approved safety lamp in said air current.

Section 7. When safety lamps are used the position of the lamp station for lighting or relighting shall not be in the return air current.

Section 8. Nothing in this article shall interfere with the discretionary powers of inspectors as provided for in article twenty-one.

ARTICLE IX

Special Rules for the Installation and Use of Electricity.

The following rules shall be observed as far as is reasonably practicable in the mines:

DEFINITIONS

The expression "pressure" means the difference of electrical potential between any two conductors through which a supply of energy is given, or between any part of either conductor and earth as read by a volt-meter, and,

(a) Where the conditions of the system are such that the pressure at the terminals where the electricity is generated cannot exceed three hundred volts, this shall be deemed a low pressure system;

(b) Where the conditions of the system are such that the pressure at the terminals where the electricity is generated between any two conductors, or between one conductor and earth, may at any time exceed three hundred volts, but cannot exceed six hundred volts, this shall be deemed a medium pressure system;

(c) Where the conditions of the system are such that the pressure at the terminals where the electricity is generated between any two conductors, or between one conductor and earth, may at any time exceed six hundred volts, this shall be deemed a high pressure system.

The expression "the minimum" signifies the least reasonably possible to be attained by the proper use of the means from time to time known and available, so as to secure safety with efficiency.

SECTION I

Rule 1. All electrical apparatus and conductors shall be sufficient in size and capacity for the work they may be called upon to do and so installed, worked, maintained and safeguarded as to reduce the danger from accidental shock or fire or overheating to the minimum, and shall be of such construction and so worked that the rise in temperature caused by ordinary working will not injure the insulating materials.

In any mine or any part of a mine where safety lamps are used, the covering of motors or cables shall be so constructed that there is no danger of firing gas by sparking or flashing that may occur during the normal or abnormal working of the apparatus.

All metallic coverings or armoring of cables, and the frames and bedplates of generators, transformers and motors other than portable motors, shall be efficiently grounded, if the pressure at the terminals where the electricity is used exceeds the limits of low pressure.

Rule 2. Where a medium pressure system is used for power purposes or for arc or incandescent lamps, the conductors that form the connection to the motors, transformers or lamps or are otherwise used in connection with the system, shall be completely enclosed in a strong armoring or metal casing, or they shall be fixed at such a distance apart or in such a manner that danger from fire or shock

shall be reduced to the minimum. This rule shall not apply to trailing cables, which are dealt with under rules twenty-seven to thirty-two.

Rule 3. Motors of coal-cutting and other portable machines shall not be used at a pressure higher than a medium pressure.

Rule 4. A higher pressure than a medium pressure shall not be used under ground, except for transmission or for application to transformers or other apparatus in which the whole of the high pressure circuit is stationary.

All high pressure machines, apparatus and lines shall be so marked by the use of the word "Danger" at frequent intervals, or by red paint properly renewed when necessary, or in some other conspicuous manner, as to indicate clearly that they are high pressure and dangerous.

For work under ground, when furnished with current at a pressure higher than medium pressure, a transformer shall not be of less normal rating than five kilowatts, nor shall a motor be of less normal rating than twenty brake horse-power.

Rule 5. In any mine or any part of a mine where safety lamps are used a higher pressure than a medium pressure shall not be transmitted beyond the last cut-through of the intake entries, and all motors, transformers and other apparatus connected with such high pressure system must be placed in suitable chambers, ventilated by intake air.

Rule 6. In every completely insulated circuit, ground detectors shall be kept connected in every generating station, to show immediately any defect in the insulation of the system. These instruments shall be inspected daily by a competent person, or an automatic recording instrument shall be used.

Rule 7. Main and distribution switch and fuse boards in the mine shall be made of incombustible insulating material such as marble or slate, free from metallic veins, and be fixed in as dry a situation as practicable.

Rule 8. No repairing of the live parts of any electrical apparatus, except cleaning or oiling, shall be done when the current is on.

Where the live parts of switches or machines working at a pressure exceeding the limits of low pressure may have to be handled for the purpose of adjustment, or for such wiping or oiling, insulating gloves or mats of India rubber or other suitable material shall be supplied by the operator and shall be used by the attendants.

Rule 9. At every gaseous mine where electricity is used below ground for power, there shall be employed a competent mine electrician, who shall be subject to the authority of the mine foreman and superintendent, and who shall have full charge of all electrical machinery and apparatus in the mine. The mine electrician or an assistant mine electrician shall be on duty at the mine when the electrical apparatus or machinery in use for the production of coal requires more than twenty-five horse power.

After the expiration of twelve months from the passage of this act no person shall be allowed to act as a mine electrician or as an assistant mine electrician in a gaseous mine unless he is the holder of a certificate of competency issued by the Department of Mines.

Every person appointed to operate any electrical apparatus in a mine shall first be instructed in his duty by the electrician or mine foreman.

Rule 10. Fire buckets filled with clean dry sand shall be kept in the mines where stationary electrical apparatus is located, ready for immediate use.

Rule 11. Instructions shall be posted at the mine entrance and in every generating, transforming and motor house, for the resuscitation of persons suffering from electric shock. All employes working in connection with the electrical apparatus shall be required to acquaint themselves with these instructions.

Rule 12. A plan on a scale not smaller than two hundred feet to the inch shall be kept at the mine showing the position of all permanent electrical machinery and fixed cables or conductors in the mine, and it shall be corrected as often as may be necessary to keep it as nearly as practicable up to date, and it shall never be more than three months in arrears. Such plan shall, so far as is consistent with this rule, be subject to the same conditions as are provided by article one of this act in relation to the plan therein mentioned.

Rule 13. Every personal accident occurring in connection with the operation of electrical equipment shall be promptly reported by the person injured, or by some other person on his behalf, to the mine foreman, who shall record it at the office of the mine.

Rule 14. In the event of a break-down of, or damage or injury to, any portion of the electrical equipment in a gaseous mine, or of overheating or of the appearance of sparks or arcs outside of enclosing casings, or in the event of any portion of the equipment (not being a proper part of the electrical circuit) becoming alive, every such occurrence shall be promptly reported to the mine foreman.

SECTION II

Generating Stations and Machine Rooms

Rule 15. When the generating station under the control of the owner or superintendent of the mine is not within five hundred feet of the mine entrance, a switch box or boxes efficiently enclosed and locked, or a locked switch house, shall be provided near the mine entrance for cutting off the supply of electricity to the mine.

Rule 16. All terminals and live metal on machines, over medium pressure above the ground and over low pressure under ground, shall, when practicable, be protected with insulating covers or with metal covers connected to earth.

Rule 17. If the transmission lines from the generating station to the mine are overhead and exceed five hundred feet in length, there shall be lightning arresters in connection therewith at the mine entrance.

SECTION III

Cables

Rule 18. All high pressure wires used inside of the mines shall be in the form of insulated lead-covered or armored conductors, subject to insulation tests and with carrying capacity according to the rules of the American Institute of Electrical Engineers.

Except in gaseous mines, all medium or low pressure conductors may be bare or with high class insulation. If bare wire is used, all

feed wires must be shielded and properly protected at all points where there is danger of men or animals coming into contact with them. In gaseous mines where locked safety lamps are used, no bare conductors shall be used in rooms or in room entries or beyond the last cut-through in other intake entries.

Rule 19. The size of the conductor (except in the case of overhead wires upon the surface) shall be determined in accordance with the table showing maximum current for copper conductors, as designated by table prepared by the American Institute of Electrical Engineers.

Rule 20. One side of all grounded circuits must be efficiently insulated from earth.

Where lead-covered or armored cable is used the lead or armor shall be earthed and shall be electrically continuous throughout.

Rule 21. The exposed ends of cables where they enter the terminals of switches, fuses and other appliances shall be properly protected and finished off so that moisture cannot creep along the insulating material within the waterproof sheath, or the insulating material, if of an oily nature, leak out of the cable.

Rule 22. All joints must be mechanically and electrically efficient and, where practicable, must be suitably soldered.

Rule 23. Overhead bare wires on the surface shall be properly secured to insulators and clear of any traffic and provided with lightning arresters.

Rule 24. In any mine or any part of a mine where safety lamps are used the main cables shall be taken into the mine by way only of an intake airway.

Rule 25. All cables used in shafts must be highly insulated and substantially fixed. Shaft cables not capable of sustaining their own weight shall be properly supported at intervals varying according to the weight of the cable. Where the cables are not completely boxed in and protected from falling material, space shall be left between them and the side of the shaft that they may yield and thus lessen a blow given by falling material.

Rule 26. When the cables in main haulage roads, where persons are hauled into or out of the mines, cannot be kept at least one foot from any part of the car, they shall be specially protected.

Cables and wires, unless provided with metallic coverings, shall not be fixed to walls or timbers by means of uninsulated fastenings.

Cables under ground, when suspended, shall be supported flexibly in such a manner as to allow of their readily breaking away when struck before the cables themselves can be seriously damaged.

When main or other roads are being repaired or blasting is being done, temporary protection must be used so that the cables are protected from damage, and cables must be inspected after such work is completed before current is applied.

Rule 27. Trailing cables for portable machines shall be specially flexible, heavily insulated and protected with extra stout braiding hose pipes or other equally effective covering.

Rule 28. The joints, if any, made in trailing cables, shall be soldered. Clamps of any kind must not be used for this purpose.

Rule 29. The two cables of the twin trailing cable shall be divided at the motor and only for such a length as is necessary for the

making of connection to the motor, and the twin cable with its outer covering complete shall be securely held by a suitable clamp on the motor frame in such a manner as to protect the trailing cable from injury and to prevent any mechanical strain being borne by the single ends making electrical connection with the motor.

Rule 30. In the event of the trailing cable in service breaking down or being damaged in any way, or of its inflicting a shock upon any person, it shall be at once put out of service and another cable shall be substituted therefor. The faulty cable shall not be used again until it has been repaired and tested by the mine electrician.

Rule 31. In gaseous mines each trailing cable in use shall be examined daily by the machine boss for abrasions and other defects.

The machineman shall also be required to observe carefully the trailing cable while in use, in order to detect defects, and in the event of any defect becoming apparent notice of the same shall at once be given to the mine electrician or the assistant mine electrician.

Rule 32. The trailing cable shall be kept disconnected from the machine while it is being loaded on to or unloaded from the truck, unless the construction of the machine is such that the electric power is necessary for its unloading or reloading. Rules twenty-seven, twenty-eight, twenty-nine, thirty, thirty-one and thirty-two do not apply to electric gathering locomotives.

SECTION IV

Fuses, Circuit-Breakers and Switches

Rule 33. Fuses and automatic circuit-breakers shall be so constructed as to open the circuit when the current through them exceeds by one hundred per centum the working current in the case of motors or the permissible current of the cables which these devices protect. Fuses shall be stamped or marked or shall have a label attached indicating the current at which they are intended to fuse, or where fuse wire is used each coil in use shall be so stamped and labeled. Fuses shall only be adjusted or replaced by a competent person authorized by the mine foreman, except in case of coal-cutting machines and electric locomotives, when the machine runners and motormen shall be permitted to adjust or replace them.

Rule 34. All switches, circuit-breakers and fuses must have incombustible bases of marble, slate or porcelain or other suitable incombustible insulating material.

Rule 35. All points at which a circuit (other than those for signals or portable motors) has to be made or broken shall be fitted with proper switches. In any mine or any part of a mine where safety lamps are used the use of hooks or other makeshifts is prohibited, and switches, circuit-breakers and fuses (except as provided for in rule forty-one hereafter) shall not be of the open type, but must either be enclosed in gas-tight boxes or break under oil.

SECTION V

Motors

Rule 36. Every stationary underground motor, together with its starting resistance, shall be protected by a fuse or circuit-breaking device in accordance with rule thirty-four, and by switches capable

of entirely cutting off the pressure. The switches shall be fixed in a convenient position near the motor, and every stationary motor of one hundred brake horse power, or over, under ground, shall be provided with a suitable meter to indicate the load on the machine.

In any mine or any part of a mine where safety lamps are used, all mining machines with their cables shall be protected against overloads or excessive currents by a completely enclosed and flame-proof fuse.

Rule 37. Where unarmored cables or wires pass through metal frames or into boxes or motor casings, the holes shall be substantially bushed with insulating collars and where necessary with gas-tight bushings that cannot readily become displaced.

Rule 38. The terminal of connections or cables for portable motors shall be securely attached to the machine.

Rule 39. When the insulation of a motor is found to become damp during a stoppage, suitable steps shall be taken to insure that the insulation shall be dry before the working of the motor is resumed.

Rule 40. In any mine or any part of a mine where safety lamps are used, or in any working place where only safety lamps are used, all motors, unless placed in such rooms as are separately ventilated with intake air, shall have all their current-carrying parts, also their switches, starters, terminals and connections, completely enclosed in such a manner as to prevent the escape of sparks or flame into the gaseous atmosphere, the enclosures to be made of incombustible material and of sufficient strength to escape damage in the event of an explosion of fire-damp occurring in the motor, and such enclosures shall not be opened except by an authorized person and then only when the current is switched off. The pressure shall not be switched on or off while the enclosures are open.

Rule 41. In any mine or any part of a mine where safety lamps are used, a safety lamp or other suitable apparatus for the detection of explosive gas shall be provided for the use of the attendant of stationary electrical apparatus; and should any indication of explosive gas appear on the flame of the safety lamp or other apparatus used, the person in charge shall immediately stop the machine, cut off the current at the nearest switch and report the matter to the mine foreman.

Rule 42. The mine foreman shall not place a man in charge of a coal-cutting machine in a gaseous mine who is not a competent person capable of determining the safety of the roof and sides and detecting the presence of explosive gas.

Rule 43. In any mine or any part of a mine where safety lamps are used, before a coal-cutting machine is brought within twenty yards of the working face, the machine-man shall make an inspection for gas in the place where the machine is to work, unless such an examination is then made by some other competent person authorized or appointed for that purpose by the mine foreman. If any explosive gas is found in the place, the machine shall not enter therein.

No coal-cutting machine shall be continued in operation for a longer period than half an hour without an examination as above described being made for gas, and if gas is found the current shall at once be switched off the machine and the trailing cable shall forthwith be disconnected from the feed wire.

The person finding the gas shall at once erect a danger signal to warn persons against entering the place. The trailing cable shall be removed from such place, and shall not be brought back, nor shall the machine be again started in such place until the fire boss or a person duly authorized by the mine foreman has examined it and has pronounced it free from gas and has removed the danger board.

The person finding gas shall forthwith report the same to the mine foreman and at the end of the shift he shall make and sign a written report in a book kept at the mine for the purpose.

Rule 44. In order that the roof may be carefully examined, no coal-cutter motor shall be kept continuously at work for a length of time exceeding half an hour.

Rule 45. The person in charge of a coal-cutting or drilling machine shall not leave the machine while it is working, and shall before leaving the working place see that the pressure is off from the trailing cables. No repairs shall be made to any portable machine until the pressure has been cut off.

Rule 46. In gaseous mines where locked safety lamps are used if any sparks or arcs appear outside the casing of a coal-cutting or other portable motor or about the cables or rails, the machine shall be stopped and shall not be worked again until the defect has been repaired, and the occurrence shall be reported to the mine foreman or to the assistant mine foreman.

Rule 47. All enclosed motors used under ground shall be opened and inspected by the mine electrician or his assistant at least once a week, and when necessary shall then be cleaned and repaired. Enclosed switches shall be opened and inspected at least once every month.

SECTION VI

Electric Locomotives

Rule 48. Electrical haulage by locomotives on the trolley wire system shall not be allowed in that part of a mine where locked safety lamps are used, except in intake entries.

Rule 49. In underground roads the trolley wire shall be sufficiently guarded, or the pressure must be cut off from the wires at all times when such roads are used for traveling on foot. The hours during which traveling on foot therein is permitted shall be clearly indicated by notices and signals placed in conspicuous positions at the ends of and at all entrances into the roads. At other times no one except a duly authorized person shall be permitted to travel on foot along such roads.

Rule 50. On underground roads the trolley wires shall be placed as close to the side and as near in a straight line as practicable and securely supported at frequent intervals. On any part of the trolley system, where it is necessary for men to cross under trolley, it shall be so guarded that the possibility of contact will be reduced to a minimum, and lights shall be placed at all such crossings.

At all landings, turnouts, partings and other places, where men are required to work near or pass under the wire, a suitable protection shall be placed. This protection may consist of channeling the roof, placing boards along the wire which shall extend three inches below, or the use of other approved devices that afford protection, or the wire may be placed six feet above the top of the rail. All branch trolley

lines shall be fitted with an automatic trolley switch or section insulator and line switch, or some other device that will allow the current to be shut off from such branch headings. Lights shall be placed along the branch headings to indicate when the power is on.

Rule 51. It is recommended that where air or water pipes parallel the grounded return of power circuits, the return be securely bonded at frequent intervals to such pipes, to eliminate the possibility of a difference of potential between rails and pipes and to prevent electrolysis of the pipes. The rail return shall be of sufficient capacity for the current used independent of the capacity of the pipes.

Rule 52. If storage battery locomotives are employed in any mine or part of a mine where safety lamps are used, the rules applying to motors in such places shall also be deemed to apply to the boxes containing the cells.

SECTION VII

Electric Lighting

Rule 53. Arc lamps used under ground shall be so guarded as to prevent pieces of heated carbon falling from them, and they shall not be used in places where there is likely to be danger from the presence of coal dust. They shall be so screened as to prevent risk of contact with persons.

Rule 54. Small wires for lighting circuits shall either be conveyed in pipes or casings, or they may be suspended from procelain insulators or securely tied to them, so that they do not touch any timbering, coal or metal. On no account shall staples be used. If metallic pipes are used, they must be electrically continuous and grounded. If separate uncased wires are used, they shall be kept at least three inches apart and not brought together, except at lamps or switches or fittings.

Rule 55. In any mine or any part of a mine where safety lamps are used, electric lamps, if installed, must be of the vacuum or enclosed type, and they shall be protected by gas-tight fittings of strong glass, and shall have no flexible cord connections. Electric lamps shall be replaced by a competent person only.

Rule 56. In gaseous mines, in all machine rooms and other places under ground where a failure of electric light is likely to cause danger, some safety lamps or other proper lights, not fewer than a number to be prescribed for such place by the inspector, shall be kept for use in the event of such failure.

SECTION VIII

Shot-Firing

Rule 57. Electricity from lighting or power cables shall not be used for firing shots.

Rule 58. When shot-firing cables or wires are used in the vicinity of power or lighting cables, sufficient precautions shall be taken to prevent the shot-firing cables or wires from coming into contact with the lighting or power cables.

Rule 59. In gaseous mines only competent persons who have been properly instructed in the work and duly authorized in writing shall be allowed to fire shots electrically in any part of a mine.

Rule 60. The exploder, fuses and wires shall be suitable for the conditions under which the blasting is carried out and shall be of an approved type.

Rule 61. High tension magneto-generators shall be enclosed in flame-tight cases when employed in any mine or any part of a mine where safety lamps are used.

Rule 62. A primary or secondary battery when used for shot-firing shall be enclosed in a suitably constructed box fitted with a removable connecting plug or key, without which the circuit cannot be closed. This plug or key shall be detached when not required for firing and shall not under any conditions pass from the personal custody of the shot-firer while on duty. Such batteries shall be frequently tested by the shot-firer to insure that they give the necessary pressure and current.

Rule 63. The exploder shall be in the charge of the shot-firer and shall be fitted with a handle or key, which shall be detached when not required for firing, and shall not under any conditions pass from the personal custody of the shot-firer while on duty.

Rule 64. The exploder shall not be connected to the shot-firing cable until all other steps preparatory to the firing of the shot have been completed and all persons have removed to a position of safety.

Immediately after the firing of the shot the firing cable shall be disconnected from the exploder and no person shall approach a shot that has been attempted to be fired by electricity and has failed to explode until the firing cable has been so disconnected and an interval of five minutes has elapsed since the last attempt to fire the shot.

The foregoing rules shall not apply to apparatus used for telephone, telegraph and signal purposes, which are provided for by the three following rules:

SECTION IX

Signaling

Rule 65. All proper precautions must be taken to prevent electric signal and telephone wires from coming into contact with other electric conductors, whether insulated or not.

Rule 66. Bells, wires, insulators, contact-makers and other apparatus used in connection with electric signals under ground shall be of substantial and reliable description and shall be erected in such a manner as to reduce the liability to failures or false signals to the minimum.

Rule 67. In any mine or any part of a mine where safety lamps are used, the pressure employed for signaling purposes shall not in any one circuit exceed fifty volts in an intake airway or twenty volts elsewhere, and bare wires shall not be used for such purposes, except in haulage roads.

SECTION X

Electric Re-Lighting of Safety Lamps

Rule 68. If in any mine or part of a mine in which safety lamps are used they are relighted under ground by electricity, the mine foreman shall select a suitable station or stations, not being in the return airway and where there is not likely to be any accumulation of inflammable gas, and no electric relighting apparatus shall be used in any other place. All electric relighting apparatus shall be securely locked and shall not be available for use except by persons authorized by the mine foreman to relight safety lamps, and such persons shall examine all safety lamps brought for relighting before they are re-issued.

ARTICLE X

Opening for Drainage, Et Cetera, on Other Lands

Section 1. If any person, firm or corporation is or shall hereafter be seized in his or their own right of coal lands, or shall hold such lands under lease and shall have opened or shall desire to open a coal mine on said land, and it shall not be practicable to drain or ventilate such mines or to comply with the requirements of this act as to ways of ingress and egress or traveling ways by means of openings on lands owned or held under lease by him, them or it, and the same can be done by means of openings on adjacent lands, he, they or it may apply by petition to the court of quarter sessions of the proper county, after ten days notice to the owner or owners, their agents or attorney, setting forth the facts under oath or affirmation, particularly describing the place or places where such opening or openings can be made, and the pillars of coal or other material necessary for the support of such passageway and the right of way necessary to any public road as may be needed in connection with such opening, and that he or they cannot agree with the owner or owners of the land as to the amount to be paid for the privilege of making such opening or openings; whereupon the said court shall appoint three disinterested and competent citizens of the county to view the ground designated and lay out from the point or points mentioned in such petition a passage or passages not more than eighty feet in area by either drift, shaft or slope, or by a combination of any of said methods by any practicable and convenient route to the coal of such person, firm or corporation, preferring in all cases an opening through the coal strata where the same is practicable. The said viewers shall at the same time assess the damages to be paid by the petitioner or petitioners to the owner or owners of such lands for the coal or other valuable material to be removed in the excavation and construction of said passage, also for such coal or other valuable material necessary to support the said passage, as well as for a right of way not exceeding fifteen feet in width from any such opening to any public road to enable persons to gain entrance to the mine through such opening or to provide therefrom, upon the surface a water course of suitable dimensions to a natural water stream, to enable the operator to discharge the water from said mine, if such right of way shall be desired by the petitioner or petitioners; which damages shall be fully paid before such opening is made. The pro-

ceedings shall be recorded in the road docket of the proper county and the pay of the viewers shall be the same as in road cases. If exceptions be filed, they shall be disposed of by the court as speedily as possible, and both parties shall have the right to take depositions as in road cases. If, however, the petitioner desires to make such openings or roads or waterways before the final disposition of such exceptions, he shall have the right to do so by giving bond, to be approved by the court, securing the damages as provided by law in the case of lateral railroads.

Section 2. It shall be compulsory upon the part of the mine owner or operator to exercise the powers granted by the provisions of the last preceding section for the procuring of a right of way on the surface from the opening of a coal mine to a public road or public roads, upon the request in writing of fifty miners employed in the mine or mines of such owner or operator: Provided, however, that with such request satisfactory security be deposited with the mine owner or operator by said petitioners (being coal miners) to fully and sufficiently pay all costs, damages and expenses caused by such proceedings and in paying for such right of way.

Section 3. In any mine or mines or parts thereof wherein water may have been allowed to accumulate in large and dangerous quantities, putting in danger the adjoining or adjacent mines and the lives of the miners working therein, and when such can be tapped and set free and flow by its own gravity to any point of drainage, it shall be lawful for any operator or person having mines so endangered, with the approval of the inspector of the district, to proceed to remove the said danger by driving a drift or drifts protected by bore holes, as provided for by this act, and in removing said danger it shall be lawful to drive across property lines if needful.

And it shall be unlawful for any person to dam or in any way obstruct the flow of any stream from said mine or parts thereof, when so set free, on any part of its passage to point of drainage.

ARTICLE XI

Sinking of Shafts

Section 1. The operator, superintendent or contractor shall erect over every shaft that is being sunk or shall hereafter be sunk a safe and substantial structure to sustain sheaves or pulleys, ropes and loads at a height of not less than twenty feet above the tipping place, and the top of such shaft and landing platform shall be arranged in such a manner that no material can fall into the shaft while the bucket is being emptied. The said structure shall be erected as soon as substantial foundation is obtained and in no case shall a shaft be sunk to a depth of more than fifty feet without such structure.

Section 2. If provisions are made to land the bucket on a truck, the said truck and platform shall be so constructed that material cannot fall into the shaft.

Section 3. Rock and coal from shafts that are being sunk shall not be raised, except in a bucket or on a cage, and said bucket or cage must be connected with the rope by a safety hook, clevis or other safe attachment. The rope shall be fastened to the side of the

drum and not less than three coils of rope shall always remain on the drum. Said shafts shall be provided with guides and guide attachments applied in such a manner as to prevent the bucket from swinging while being lowered or hoisted, and said guides and guide attachments shall be maintained at a distance of not more than seventy-five feet from the bottom of the shaft. This provision shall not apply to shafts less than one hundred feet in depth.

Section 4. It shall be the duty of the person in charge of shaft-sinking for the contractor or company to see that the sides of all shafts are properly secured for safety and that no loose rock or material is allowed to remain on any timber on top or on any timber in the shaft after each blast. Where explosive gas is encountered, the person in charge shall see that the shaft is examined before each shift and before the men descend after each blast and also that the place is safe. In sinking shafts all blasts must be exploded by electric battery. Provision must also be made for the proper ventilation of shafts while being sunk.

Section 5. An efficient brake shall be attached to every drum of an engine used in sinking shafts, and all machinery, ropes and chains connected therewith shall be examined once every twelve hours.

Section 6. Not more than four persons shall be lowered or hoisted in or on a bucket in any shaft at one time and no person shall ride on a loaded bucket.

ARTICLE XII

Ambulances and Stretchers

Section 1. The operator or the superintendent of every mine shall provide and keep in good condition at the principal entrance of the mine, or at such other place as the inspector may designate, one ambulance and at least two stretchers for conveying to his place of abode any person that may be injured while in the discharge of his duties, and also woolen and waterproof blankets: Provided, however, that at any mine in which less than fifty persons are employed inside, an ambulance shall not be required: Provided, further, that if the places of abode of ninety per centum of the workmen at any mine are within a radius of one mile from the principal entrance to the mine, an ambulance shall not be required: Provided, further, that where two or more mines are located within one mile of each other, or where the ambulance is located within one mile of each mine, only one ambulance as aforesaid shall be required if such mines have ready and quick means of communication by telegraph or telephone.

Section 2. The ambulance shall be constructed upon good substantial easy springs. It shall be covered and closed and shall be provided with spring mattresses or other comfortable bedding, to be placed on roller frames, together with sufficient covering and protection for the convenient movement of the injured. It shall be of sufficient size to convey at least two injured persons and two attendants at one time and shall be provided with seats for the attendants.

The stretchers shall be constructed of such material and in such a manner as to afford the greatest ease and comfort in the carriage of the injured persons.

At all mines there shall be provided bandages, splints and other medical supplies to render first aid and relief to employes who may be injured. These supplies shall be kept in a suitable room. The room shall be located near the entrance to or inside of the mine and shall be sufficiently large to accommodate the injured employes while they are receiving medical attention .

Section 3. Whenever any person employed in or about any mine shall receive such an injury by accident or otherwise as to render him unable to walk to his place of abode, the operator or the superintendent shall immediately have said person removed to his place of abode or to a hospital, as the case may require.

Section 4. If the conditions are such that the person injured can be conveyed to his home or to the hospital more conveniently and more quickly by railroad, trolley road, or other conveyance, such mode of conveyance shall be permitted, but in such cases the conveyance must be under cover and the comfort of the injured person must be provided for.

ARTICLE XIII

Wash Houses

Section 1. Where the clothing or wearing apparel of employes becomes wet by reason of working in wet places in the mines, it shall be the duty of the operator or superintendent of each mine, at the request in writing of the mine inspector, who shall make such request upon the petition of any five miners of any one mine in the district working in the aforesaid wet places, to provide a suitable building convenient to the principal entrances of such mine, for the use of the persons employed in wet places therein, for the purpose of washing themselves and changing their clothes when entering the mine and returning therefrom. The said building shall be maintained in good order and be properly lighted and heated, and shall be provided with facilities for persons to wash. If any person or persons shall neglect or fail to comply with the provisions of this article, or maliciously injure or destroy or cause to be injured or destroyed the said building or any part thereof, or any of the appliances or fittings used for supplying light and heat therein, or do any act tending to the injury or destruction thereof, he or they shall be deemed guilty of a misdemeanor.

ARTICLE XIV

Boilers and Connections

Section 1. All boilers used for generating steam in and about the mines shall be kept in good condition and the superintendent shall have them examined and inspected by a duly qualified person once every six months. A report of said examination shall be certified to by said person and sent to the inspector of the district within thirty days thereafter.

Section 2. Each boiler shall be provided with a safety valve of sufficient area for the steam to escape, and with weights or springs properly adjusted.

Section 3. No boiler used for generating steam shall be placed or allowed to remain inside of any mine, without the consent of the in-

spector, which shall be given in writing to the superintendent, and said boiler shall be enclosed in a fire-proof building and placed within fifty feet of the bottom of an upcast shaft, which shaft shall not be less than thirty-five square feet in area. Said boiler shall conform with sections one, two and four of this article.

Section 4. Every boiler house shall be provided with a sufficient number of steam gauges, which shall be properly connected with the boilers, to indicate the pressure of steam to the firemen, outside foreman or superintendent, and another steam gauge shall be attached to the main steam pipe in the engine house so that the engineer can readily examine it. All steam gauges shall be kept in good order, tested and adjusted every six months, and their condition shall be reported to the inspector in the same manner as the report of the boiler inspection is made.

ARTICLE XV

Inside Stables

Section 1. It shall not be lawful for the superintendent or mine foreman to provide a horse or a mule stable inside of any mine, unless space for said stable is excavated in solid strata of rock, slate or coal. If excavated in the coal seam, the wall shall be built of brick, stone or concrete not less than twelve inches in thickness, and said wall shall be built from the bottom slate to the roof. Wood or other combustible material shall be used in the smallest practicable quantity in the construction of the inside of said stable. The air current used for the ventilation of said stable shall not be intermixed with the air current used for ventilating any other part of the mine, but shall be conveyed directly to the return air current. No open light shall be permitted in any stable in any mine.

No hay or straw shall be taken into any mine, unless pressed and made up into compact bales, which shall be kept in a storehouse built apart from the stable and in the same manner as the stable. Under no circumstances shall the hay be stored in the stable.

ARTICLE XVI

Regulations for Powder and Detonators

Section 1. No powder or high explosive shall be stored in any mine, and no more of either article shall be taken into any mine at one time by any one person than is required in one shift. The quantity shall not exceed five pounds: *Provided, that in a mine where shot-firers are employed, the shot-firers shall have the right to take a sufficient quantity to complete their work.*

Black powder for use in mines shall be put up in five, ten, fifteen and twenty-five pound metallic cans, canisters or receptacles of equally safe material.

Section 2. In all mines or parts of mines generating explosive gas, no explosive other than a "permitted explosive" shall be used. Each charge shall consist of only one kind of explosive. The term "permitted explosive" means an explosive that has fulfilled the requirements of certain tests as specified by the Department of Mines, the tests to be made at a testing station to be designated by said Department and open to all manufacturers of explo-

sives for use in this State. The Department of Mines shall forward to the operators, upon application, the names of all explosives, their methods of use and the results of the tests made therewith.

No "permitted explosive" shall be sold for use in bituminous mines, unless the name of manufacturer, name of explosive, method of handling and full instructions for use are conspicuously displayed on or in the package containing the explosive.

Section 3. Detonators shall be under the control of the mine foreman and shall be issued only to those by whom they are used, and shall at all times be kept in securely locked cases separate and apart from other explosives until required for use.

The Chief of the Department of Mines, when satisfied that any explosive has become dangerous, may prohibit the use thereof in any mine either absolutely or subject to conditions.

ARTICLE XVII

Regulations for Oil

Section 1. The oiling or greasing of cars inside of any mine is strictly prohibited, unless the place where said oil or grease is used is thoroughly cleaned at least once every day to prevent the accumulation of waste oil or grease on the roads or in the drains at that point. Not more than one barrel of lubricating oil shall be permitted in any mine at one time and it shall be kept in a fire-proof building cut out of solid rock or made of masonry or concrete, of sufficient thickness to insure safety in case of fire.

Section 2. No explosive oil shall be taken into or used in any mine for lighting purposes, except when used in safety lamps, and shall not be taken into or stored in any mine in quantities exceeding five gallons. Said oil when stored in a mine shall be kept in a fire-proof vault made of masonry or concrete.

Section 3. All oils or materials used in open lamps shall be non-explosive and free from odors and fumes deleterious to health, and shall have a burning point not lower than three hundred degrees, and must not produce over eleven one-hundredths of one per cent. of their weight of soot when burned in a miner's lamp with a flame one and one-half inches high, the determination of the percentage of soot to be by tests specified by the Department of Mines.

Section 4. Paraffine wax used in mines shall not contain over three per cent. of oil.

Section 5. All illuminants sold to be used in open lamps in mines shall have branded conspicuously on the barrel or package containing the same the name of the manufacturer, date of shipment and percentage of soot.

Section 6. Any employe who shall use or any mine foreman who shall permit to be used in any mine any oil or any other material for illuminating purposes other than that prescribed in this article shall be guilty of a misdemeanor.

Section 7. It shall be the duty of the inspector, whenever he has reason to believe that an illuminant is being used or sold or offered for sale in violation of the provisions of this article, to take samples of the same and have them tested under the direction of the Department of Mines.

ARTICLE XVIII

Employment of Boys and Females

Section 1. No boy under the age of fourteen years, or any woman or girl of any age, shall be employed in or about any mine, and no boy under the age of eighteen years shall be permitted to mine or load coal in any room, entry or other working place, unless in company with a person over eighteen years of age.

No boy under the age of sixteen years shall be employed in or about any mine, unless during the time that said boy is employed there is on file in the office of said mine an employment certificate issued by the city, borough, township or county superintendent of public schools, or secretary of the school board of the township or public school, or a principal of a parochial school, or by his duly appointed deputy, reciting the age of said boy as it appears on any record satisfactory to the person who issues said certificates, or, if such record of age be lacking, reciting the age of said boy according to an affidavit taken by his parent, guardian or custodian and attached to said certificate, and said certificate shall for all purposes be conclusive evidence of the age of said boy.

Nothing in this section shall be held to forbid the employment of a girl between the ages of fourteen and sixteen years in the office of a mine, provided that during the time of employment there is on file for said girl in said office an employment certificate of the character hereinbefore provided for the employment of boys under sixteen years of age inside any mine.

Section 2. Any superintendent or mine foreman who fails to comply with the provisions of this article shall be deemed guilty of a misdemeanor, and it shall be the duty of the inspector, or any other person who knows that the superintendent or mine foreman has violated any of the provisions of this article, to prosecute said superintendent or said mine foreman in accordance with section two of article twenty-six of this act.

ARTICLE XIX

Boards to Examine Applicants for Certificates of Qualification as Mine Foremen, Assistant Mine Foremen and Fire Bosses

Section 1. In order to maintain efficiency in mine management and to have a competent standard of qualifications among mine officials and to promote the health and safety of the employes, the Governor shall during the month of January of each year appoint a sufficient number of miners and operators, managers or superintendents, who, with the inspectors in office, shall comprise the Boards of Examiners to examine applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses in bituminous mines. Said miners and operators, managers or superintendents, must be citizens of this Commonwealth and at least thirty-five years of age. Each board shall be comprised of two inspectors, who shall act ex-officio, one miner who shall have received a certificate of qualification qualifying him to act as mine foreman in bituminous mines of this Commonwealth that generate explosive gas, and one operator, manager or superintendent, who shall hold office for one year from

date of appointment. The Chief of the Department of Mines shall designate the members who shall constitute the different boards and shall name the places where the boards shall hold the examinations. The miner and the operator, manager or superintendent appointed on each board shall be from the districts under the supervision of the two inspectors who are members of the board. The boards shall meet on the second Tuesday in May each year and shall give due notice for at least two weeks of the time and places where the examinations will be held.

Each board shall organize by electing one of the inspectors chairman and the other inspector secretary, and after being duly organized the members shall take and subscribe to the following oath before an officer authorized to administer the same, namely:

"We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for certificates of qualification as mine foremen, assistant mine foremen and fire bosses; that we will not divulge or make known to any person any question prepared for an examination, or in any manner assist any applicant to pass the examination, but will be governed by the evidence of the qualifications of applicants to fill said positions and not by any consideration of personal favor, and that we will certify all whom we may find qualified in accordance with this act and none other."

Any member of any Board of Examiners who shall divulge or make known any question prepared for an examination, prior to such question being handed to the applicants at the examination, or in any manner assist any applicant to pass the examination, shall be deemed guilty of a misdemeanor.

Any vacancy that may occur in the membership of the boards shall be filled by the Governor in accordance with the provisions of this section.

Section 2. The members of the Boards of Examiners appointed by the Governor, with the inspectors in office, shall meet in the city of Pittsburg two weeks before the time set for the examination of applicants, for the purpose of discussing the general scope of the theoretical and practical questions to be given the applicants and to adopt rules to govern the examinations and to decide any other important matters pertaining to their duties, and said boards shall select a committee of six of their number, comprising two inspectors, two miners and two operators, managers or superintendents, to formulate a code of questions to be used at the examinations. The said committee shall select one of their members as chairman and one as secretary. The questions prepared by the said committee shall be printed under the personal direction of the chairman and the secretary of the committee and sent by them by express in sealed packages, each package containing a set of questions for each session, to the chairman of each Board of Examiners, who shall break the seal and open the package at the commencement of each session in the presence of the other members of the board.

After the examinations of applicants are over and before the several boards meet to examine the papers of the applicants, the said committee of six shall meet again to prepare answers for the ques-

tions propounded, and these answers shall be sent to the chairman of each board, to be used in rating the value of the answers given by the applicants. While preparing answers to the questions the committee is hereby authorized to engage the services of a clerk, who shall be a stenographer, and whose compensation and mileage shall be the same as that of the members of the committee.

Section 3. Each member of each board shall receive six dollars a day for each day actually employed, not exceeding twenty days in all, and mileage at the rate of two and one-half cents a mile for each mile necessarily traveled in going from his home to the place of meeting and return by the shortest practicable railway route: Provided, that the mileage shall be paid but once for each continuous session of the board. By a continuous session is meant a session of not less than four days in each week: Provided, further, that the committee of six shall each receive additional compensation at the rate of six dollars a day for the time spent in preparing the questions and answers. Each member shall also be reimbursed for all other necessary expenses incurred by him in discharge of his duties. Each Board of Examiners is hereby authorized to employ the services of a clerk, who shall be a stenographer and whose compensation and rate of mileage shall be the same as that of the members of the board. The clerk of each board shall, on final adjournment, send to the Chief of the Department of Mines properly attested vouchers for compensation and expenses of each member of the board, and also a voucher covering his own compensation and expenses, which vouchers shall be first approved by the chairman and the secretary of the board. The Chief of the Department of Mines shall then approve said vouchers and transmit them to the Auditor General, who shall issue a warrant for their payment to the State Treasurer.

Section 4. Applicants must appear before the Board of Examiners of the inspection district wherein they reside. All persons who desire to attend the examination shall notify the chairman of the board of their intention, if possible, not less than six days prior to the day set for the examination. The boards shall inquire into the character and qualifications of applicants who present themselves for examination.

Applicants for certificates of qualification as mine foremen and assistant mine foremen shall be citizens of the United States, of good moral character and of known temperate habits, at least twenty-three years of age, and shall have had at least five years' practical experience after sixteen years of age as miners or mining engineers or men of general work inside of the mines of Pennsylvania. Applicants for certificates of qualification as fire bosses shall be citizens of the United States, of good moral character and of known temperate habits, at least twenty-three years of age, and shall have had at least five years' practical experience after sixteen years of age as miners or men of general work, and shall have had experience in mines in Pennsylvania that generate explosive gas.

All applicants shall furnish the board with certificates as to their character and temperate habits. The certificates shall also show the length of service in the different mines.

Certificates of qualification as mine foremen shall be of two grades, namely: Certificates of first grade shall be granted to persons who have given to the Board of Examiners satisfactory evidence of their ability to perform the duties of mine foremen in gaseous mines and

who shall have received an average of at least eighty per centum in the examination. Certificates of second grade shall be granted to persons who have given to the Board of Examiners satisfactory evidence of their ability to perform the duties of mine foremen in non-gaseous mines and who shall have received an average of at least eighty per centum in the examination.

Certificates of qualification as assistant mine foremen shall be granted to persons who have given to the Board of Examiners satisfactory evidence of their ability to perform the duties of assistant mine foremen in gaseous mines and who shall have received an average of at least sixty-five per centum in the examination.

All applicants for certificates as mine foremen and assistant mine foremen in gaseous mines must also undergo an oral examination in the presence of explosive gas.

Certificates of qualification as fire bosses shall be granted to persons who have given to the Board of Examiners satisfactory evidence of their ability to perform the duties of fire boss after an oral examination in the presence of explosive gas.

Section 5. Before examination each applicant for a certificate of qualification as mine foreman, assistant mine foreman or fire boss shall pay to the Board of Examiners the sum of one dollar, and, if successful, two dollars additional for a certificate. All money received by the Boards of Examiners for examination fees and certificates shall be transmitted to the Chief of the Department of Mines, who shall pay the same into the State Treasury, less the cost of issuing and recording certificates.

Section 6. Each Board of Examiners, or at least three members thereof, shall certify to the Chief of the Department of Mines, on forms furnished by him, every person whose examination shall disclose his fitness for the duties of mine foreman, assistant mine foreman or fire boss, as above classified, and the Chief of the Department of Mines shall then prepare certificates of qualification for the successful applicants and send them to the chairman of the board for distribution. Each certificate shall contain the full name, age and place of birth of applicant, and also the length and nature of his previous service in or about the mines. The certificates shall be in manner and form as prescribed by the Chief of the Department of Mines.

Section 7. Each Board of Examiners shall send to the Chief of the Department of Mines the answers and all other papers of the applicants, together with the tally sheets and a list of the questions and answers as prepared by the committee selected by the boards, which shall be filed in the Department of Mines as public documents.

Section 8. Certificates of service that shall have the same effect for the purposes of this act as certificates of qualification shall be granted by the Chief of the Department of Mines, on the reports of the Boards of Examiners, to all persons who are acting as assistant mine foremen in gaseous mines when this act becomes effective. Certificates of service shall be in manner and form as prescribed by the Chief of the Department of Mines and shall contain the full name, age and place of birth of applicant and also the length and nature of his previous service in or about the mines. Applicants for certificates of service, shall pay to the board the sum of two dollars, which shall be transmitted to the Chief of the Department of Mines.

Section 9. It shall be unlawful for any operator, manager or superintendent to employ as mine foreman in any mine, or as assistant mine foreman in any gaseous mine, any person who has not obtained the proper certificate of qualification or service required by this act: Provided, that all persons holding certificates of qualification as mine foremen granted under the provisions of the act of May fifteen, one thousand eight hundred and ninety-three, may continue to serve; and, provided further, that any person acting as mine foreman by virtue of holding a certificate of service granted previous to the passage of the act of May fifteen, one thousand eight hundred and ninety-three, may continue to serve at any mine where the general conditions affecting the health and safety of the persons employed do not differ materially from those at the mine in which he was employed when said certificate was granted, which question shall be decided by the inspector of the district; and it shall be unlawful for any operator, manager, superintendent or mine foreman to employ as fire boss any person who has not obtained the proper certificate of qualification required by this act: Provided, that all persons holding certificates of qualification as fire boss granted under the provisions of the act of May fifteen, one thousand eight hundred and ninety-three, may continue to serve.

Section 10. If any person shall forge or counterfeit a certificate, or knowingly make or cause to be made any false statement in any certificate issued under this act or any previous act or in any copy thereof, or shall make use of such forged or false certificate or copy thereof, or shall make use of any false declaration, representation or statement in any such certificate or copy thereof or any document containing the same, he shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be fined not less than two hundred dollars nor more than five hundred dollars, or imprisoned for a term not exceeding one year, or both, at the discretion of the court.

Section 11. In case of the loss or destruction of a certificate the Chief of the Department of Mines shall issue a copy thereof to the person losing said certificate on payment of the sum of one dollar: Provided, that it shall be shown to the satisfaction of the Chief of the Department of Mines that the loss or destruction has actually occurred.

Section 12. Nothing in this article shall prevent a first grade mine foreman from acting as assistant mine foreman in any mine, or a second grade mine foreman from acting as assistant mine foreman in a non-gaseous mine.

ARTICLE XX

Mine Inspectors' Examining Board; Appointment and Duties. Mine Inspectors; Their Appointment, Duties and Powers

Section 1. The Governor shall appoint during the month of January, one thousand nine hundred and thirteen, and every four years thereafter, five citizens of this Commonwealth, of good repute, to be known as the Mine Inspectors' Examining Board, whose duty it shall be to examine applicants for the office of inspector in the bituminous coal region of this Commonwealth. Two of the members of said board shall be mining engineers, and three of the members shall have

passed successful examinations qualifying them to act as inspectors or mine foremen in bituminous mines generating explosive gas, and shall have had at least five years' practical experience as miners in the bituminous mines of Pennsylvania. Applicants for appointment on the said Examining Board shall be at least thirty years of age.

Each member of the Examining Board shall receive the sum of ten dollars a day for each day actually employed and all necessary expenses incurred in carrying out the provisions of this article, which shall be paid out of the State Treasury on warrant of the Auditor General issued upon presentation of vouchers properly made out and sworn to by each member of the board and approved by the Chief of the Department of Mines. The Examining Board is hereby authorized to engage the services of a clerk, who shall be a stenographer.

Any vacancy that may occur in the membership of the Examining Board shall be filled by the Governor according to the provisions of this section.

Section 2. The said Examining Board shall meet on the first Tuesday in March following its appointment, in the city of Pittsburg, to examine applicants for the office of inspector. Two weeks previous to the aforesaid time the board shall meet to prepare questions and formulate rules for conducting the examination. The board may also be convened by the Governor at any other time for the purpose of filling vacancies or performing any other necessary work. The board, after being duly organized, shall take and subscribe to, before any officer authorized to administer the same, the following oath, namely:

"We, the undersigned, do solemnly swear (or affirm) that we will perform the duties of examiners of applicants for appointment as inspector of mines to the best of our ability, and that in recommending or rejecting said applicants we will be governed by the evidence of their qualifications to fill the position and not by any consideration of political or personal favor, and that we will certify all whom we may find qualified according to the true intent and meaning of this act and none other." The oaths of the members of the Examining Board shall be filed in the Department of Mines.

Section 3. The qualifications of candidates for the office of inspector shall be certified to the Examining Board and shall be as follows:

The candidates shall be citizens of Pennsylvania, of temperate habits, of good repute as men of personal integrity, in good physical condition, and shall be between the ages of thirty and fifty years: Provided, however, that any inspector appointed under the provisions of the act of May fifteen, one thousand eight hundred and ninety-three, or under the provisions of this act, shall be eligible for reappointment, even if beyond fifty years of age, if in good physical condition. The candidates shall have a knowledge of the different systems of working coal seams and shall have had at least ten years' practical experience in bituminous mines, five years of which immediately preceding their examination shall have been in bituminous mines of this Commonwealth, and shall also have had practical experience with explosive gas and other dangerous gases found in coal mines, and upon examination shall give evidence of such theoretical as well as practical knowledge and general intelligence respecting mines and mining and the working and ventilation of mines as will

satisfy the Examining Board of their capability and fitness for the duties imposed upon inspectors of mines by the provisions of this act.

Section 4. The principal examination shall be in writing and each applicant shall also undergo an oral examination pertaining to explosive gas, safety lamps, methods of ventilation and mine management. The questions and answers thereto in the oral examination shall be reported verbatim by an expert stenographer and typewritten fully to assist the board in the work of rating the qualifications of the candidates. Candidates who shall make a general average of at least ninety per centum shall be deemed successful. The manuscripts and other papers of all applicants in the principal examination, together with the tally sheets and the correct solution of each question as prepared by the Examining Board, and also the stenographer's report of the oral examination, shall be filed in the Department of Mines. The Examining Board, or at least four members thereof, shall certify to the Governor and also to the Department of Mines the names and percentages of all successful candidates who are properly qualified under the provisions of this article to fill the office of inspector. A certificate of qualification prepared by the Chief of the Department of Mines shall be issued to each successful candidate.

The Examining Board shall as soon as practicable after the examination furnish to each applicant on printed slips of paper a copy of all questions (oral and written) given at the examination, marked, solved right, imperfect or wrong, as the case may be.

Section 5. The Governor shall, from the names certified to him by the Examining Board, commission one person to be inspector for each district in pursuance of this act, whose commission shall be for a full term of four years from the fifteenth day of May following the regular examination: Always provided, however, that the candidate or candidates highest in percentage in the examination shall have priority in being commissioned for a full term or an unexpired term over candidates of lower percentage. Each inspector appointed under the provisions of the act of May fifteen, one thousand eight hundred and ninety-three, may continue in office until May fifteen, one thousand nine hundred and thirteen.

After the regular examination in March, one thousand nine hundred and nine, the Chief of the Department of Mines shall have the right to assign the inspectors to the districts for which in his opinion they are best fitted.

Section 6. When a vacancy occurs in said office of inspector the Governor shall commission for the unexpired term from the names on file in the Department of Mines the person highest in percentage (but no person shall be commissioned who has not received an average of at least ninety per centum). When the number of candidates who have received an average of at least ninety per centum shall be exhausted, the Governor shall cause the aforesaid Examining Board to meet, for a special examination, and examine the persons who may present themselves for examination in accordance with section three of this article, and the board shall certify to the Governor and also to the Chief of the Department of Mines the names of all applicants who have made a general average of at least ninety per centum in said examination, as provided for in section four of this article, one

of whom shall be commissioned by the Governor according to the provisions of section five of this article, for the office of inspector for the unexpired term. In conducting the said special examination the board shall comply with all the requirements of sections three and four of this article.

Section 7. After the passage of this act the salaries of the inspectors shall be as follows:

An inspector who has not served as an inspector or who will have served as such less than four years on the fifteenth day of May following his appointment, shall receive the sum of three thousand dollars a year; an inspector who will have served four years on the fifteenth day of May following his appointment and less than eight years, shall receive the sum of three thousand five hundred dollars a year; and an inspector who will have served eight years or more on the fifteenth day of May following his appointment, shall receive the sum of four thousand dollars a year; to be paid quarterly by the State Treasurer on warrant of the Auditor General issued upon the presentation of voucher approved by the Chief of the Department of Mines. Each inspector may also incur traveling expenses and such other expenses as may be necessary for the proper discharge of his duties under the provisions of this act, which shall be paid quarterly by the State Treasurer on warrant of the Auditor General issued upon presentation of vouchers properly made out and sworn to by the inspector and approved by the Chief of the Department of Mines. Each inspector shall have an office in his district, which may be at his place of residence, provided that a suitable room approved by the Chief of the Department of Mines be set apart for that purpose. The Chief of the Department of Mines shall have authority to procure for the inspectors on their request furniture, instruments, chemicals, typewriters, stationery and all other necessary supplies, which shall be paid for by the State Treasurer on warrant of the Auditor General upon presentation of vouchers approved by the Chief of the Department of Mines. All furniture, instruments, plans, books, memoranda, notes and other materials pertaining to the office of inspector shall be the property of the State and shall be delivered by the inspector to his successor in office.

Section 8. The inspectors shall be allowed all necessary expenses incurred by them in enforcing the several provisions of this act in the respective courts of this Commonwealth (provided they have the consent of the Department of Mines before such expense is incurred), the same to be paid by the State Treasurer on warrant of the Auditor General issued upon presentation of itemized vouchers approved by the court before which the proceedings were instituted and also by the Chief of the Department of Mines.

Section 9. Each inspector shall before entering upon the discharge of his duties give bond in the sum of five thousand dollars, with sureties to be approved by the president judge of the district in which he resides, conditional for the faithful discharge of his duties, and shall take an oath or make affirmation that he will discharge his duties with impartiality and fidelity to the best of his knowledge and ability. But no person who is acting as manager or agent of any coal mine or as mining engineer or who is interested in operating any coal mine shall at the same time act as inspector under this act.

Section 10. In case the inspector becomes incapacitated to perform the duties of his office or is granted a leave of absence by the

Chief of the Department of Mines, it shall be the duty of the Governor, at the request of the Chief of the Department of Mines, to appoint temporarily to the office the person standing highest on the eligible list of applicants filed in the Department of Mines. The temporary inspector shall act until the regular inspector is able to resume the duties of his office and shall be paid in the same manner as hereinbefore provided for the payment of the regular inspector.

Section 11. Each inspector shall devote the whole of his time to the duties of his office. It shall be his duty to examine each mine in his district as often as possible, giving special attention to all mines generating explosive gas and to other mines where unusual dangers may be suspected to exist, and to see that all the provisions of this act are observed and strictly carried out, especially those that demand that the air current be carried to the working faces. He shall keep in his office a record of all examinations of mines showing the condition in which he finds them, especially with reference to ventilation and drainage, the number of persons employed inside of each mine, the extent to which the law is obeyed and the progress made in the improvement of mines. He shall keep a record of all serious accidents, showing the nature and causes thereof, and the number of deaths resulting therefrom.

Section 12. It shall be the duty of the inspector, after an examination of any mine, to make out a written or partly written and partly printed report of the condition in which he finds it, and to post the said report or to forward the same to the superintendent of the mine, within five days from the date of making the said examination, to be posted by him immediately upon receiving the same in the office at the mine or in some other conspicuous place, where it shall remain for one year open to examination by any person employed in or about the said mine. The report shall show the date of the inspection, the number of cubic feet of air in circulation, where the measurement of the air was made, and the quantity of air as measured at the last cut-through in each split, together with the number of persons employed in each split, and also at any other place requested by the Chief of the Department of Mines. The report shall contain such other information as the inspector may deem necessary.

If the inspector discovers any room, entry, airway or other working places being driven in advance of the air current, contrary to the requirements of this act, he shall order the workmen in such places to cease work at once until the law is complied with.

If the inspector discovers that the air in a mine is becoming vitiated by the unnecessary blasting of the coal, he shall have the power to regulate the use of powder or explosives and to designate at what hours blasting shall be done.

Section 13. To enable the inspector to perform the duties imposed upon him by this act, he shall have the right at all times to enter any mine in his district to make examinations or obtain information, and upon the discovery of any violation of this act, or upon being informed of any violation of the act, he shall institute proceedings against the person or persons at fault, under the provisions of section two of article twenty-six of this act. In case any mine or part of a mine is in the judgment of the inspector in so dangerous a condition as to jeopardize life and health, he shall at once notify the Chief of the Department of Mines, who shall imme-

diately direct two or more of the other inspectors to accompany promptly the said inspector to the mine wherein said dangerous condition is alleged to exist. The inspectors shall make a full investigation and if they shall agree that there is immediate danger, they shall direct the superintendent of the mine in writing to remove forthwith said dangerous condition. If the superintendent fails to do so, the inspectors shall immediately apply in the name of the Commonwealth to the court of common pleas of the county in which said mine is located, or to a judge of said court in chambers, for a writ of injunction to enjoin the suspension of all work in and about said mine. Whereupon said court or judge shall at once proceed to hear and determine the case, and if the cause appear to be sufficient, after hearing the parties and their evidence, as in like cases, shall issue its writ to restrain the working of said mine until all cause of danger is removed, and the costs of said proceedings shall be borne by the owner, lessee or agent of the mine: Provided, that if said court shall find the cause not sufficient, then the case shall be dismissed and the costs shall be borne by the county wherein said mine is located: Provided, also, that should any inspector find during his inspection of a mine or part of a mine such dangerous conditions existing therein that in his opinion any delay in removing the workmen from such dangerous places might cause loss of life or serious personal injury to the employes, the said inspector shall have the right to temporarily withdraw all persons from such dangerous places until the foregoing provisions of this section can be carried into effect.

Section 14. Each inspector shall make the following reports to the Chief of the Department of Mines on blank forms provided for that purpose: Not later than the tenth of each month he shall make a report of all fatal and serious non-fatal accidents that have occurred in his district during the preceding month, stating the date, nature and cause of each accident and placing the responsibility therefor, together with the name, age, occupation and nationality of each person killed and injured, and whether married or single and the number of widows and orphans left, which report shall be recorded and filed in the Department of Mines and included (or a synopsis of the same) in the annual report of said Department. Not later than the sixth of each month he shall make a report, giving the name of operator and name and location of each mine inspected during the preceding month, with date of inspection, condition of mine, quantity of air in circulation at all points required by the Chief of the Department of Mines, and the number of persons employed in each split of air. Not later than the twentieth of February of each year he shall make an annual report, which shall briefly recapitulate the duties performed by him during the preceding year and briefly describe the condition of the mines in his district relative to ventilation, drainage and general sanitary arrangements, as relating to the health, safety and welfare of the employes, and which shall also contain such suggestions or information of importance as he may deem necessary or as required by the Chief of the Department of Mines.

ARTICLE XXI

Discretionary Powers of Inspectors; Arbitration

Section 1. The inspector shall exercise sound discretion in the performance of his duties under the provisions of this act, and if the operator, superintendent, mine foreman or other person employed in or about any mine shall be dissatisfied with any decision the inspector has given in the discharge of his duties, which decision shall be in writing, it shall be the duty of the dissatisfied person to appeal from said decision to the Chief of the Department of Mines, who shall at once direct two or more of the other inspectors to accompany promptly the inspector of the district to make further examination into the matter in dispute. If the said inspectors shall agree with the decision of the inspector of the district, their decision shall be final unless the dissatisfied person shall, within seven days of the receipt of the decision of the committee of inspectors, appeal therefrom to the court of quarter sessions of the county in which said mine is situated.

Section 2. Whereupon the court or the judge of said court in chambers shall forthwith appoint three practical, reputable, competent and disinterested persons, who are not in the employ of the company or any of its officers, whose duty it shall be under instructions of the said court to forthwith examine into the cause of complaint and report under oath the facts as they exist or did exist, together with their opinions thereon, within ten days after their appointment. The report of said committee shall become absolute, unless exceptions thereto shall be filed within ten days after the notice of the filing of the report by the operator, superintendent, mine foreman, inspector or other persons, as aforesaid; and if exceptions are filed the court shall at once hear and determine the same, and the decision of the court shall be final and conclusive.

Section 3. If the court shall finally sustain the decision of the inspectors, then the appellant shall pay all costs of said proceedings, and if the court shall not sustain the decision of the inspectors, then said costs shall be paid by the county: Provided, that no appeal from any decision made by any inspector, which can be immediately complied with, shall work as a supersedeas to such decisions during the pendency of such appeal, but all decisions shall be in full force until reversed or modified by the proper court.

ARTICLE XXII

Neglect or Malfeasance of Inspectors

Section 1. The court of common pleas in any county or district, upon a petition signed by not less than fifteen reputable citizens, who shall be miners or operators of mines, and with the affidavit of one or more of said petitioners attached, setting forth that any inspector of mines is neglectful of or is incompetent to perform the duties of his office, or that he is guilty of malfeasance in office, shall issue a citation in the name of the Commonwealth to the said inspector to appear on not less than fifteen days' notice, upon a day fixed, before said court at which time the court shall proceed to inquire into and investigate the allegations of the said petitioners: *Provided, however, that the citation shall not issue until the peti-*

tioners shall file a bond in said court, with sufficient sureties to be approved by the court, conditioned that the petitioners shall pay all the costs of the proceedings in case the charges are not sustained.

Section 2. If the court finds that the said inspector is neglectful of or is incompetent to perform the duties of his office, or that he is guilty of malfeasance in office, the court shall certify the same to the Governor, who shall declare the office of said inspector vacant and proceed in compliance with the provisions of this act to fill the vacancy.

The costs of said investigation shall, if the charges are sustained, be imposed upon the inspector, but if the charges are not sustained they shall be imposed upon the petitioners.

ARTICLE XXIII

Inspection Districts

Section 1. Under this act the bituminous counties of the Commonwealth shall be arranged into twenty-two inspection districts, and it shall be the duty of the Chief of the Department of Mines to assign the inspectors to their respective districts. He shall also designate their places of abode at points as convenient as possible to the mines of their districts.

Section 2. With the consent of the Governor, the Chief of the Department of Mines may at any time redistrict the bituminous districts and add to the number of inspectors, if in his judgment the number should be increased.

ARTICLE XXIV

Annual Reports

Section 1. On or before the twenty-fifth day of January in each year the operator or the superintendent of every mine shall send to the inspector of the district a correct report, specifying with respect to the year ending the thirty-first day of December preceding, the name of the operator and officers of the mine, number of tons of coal mined, number of tons of coke manufactured, number of different employes, classified, and the total number of days worked during the year. The report shall be in such form and give such information regarding the mine as may be from time to time required and prescribed by the Chief of the Department of Mines.

The operator or the superintendent who fails to comply with the provisions of this article shall be deemed guilty of a misdemeanor.

ARTICLE XXV

Special and General Rules

Duties of Miner

Rule 1. The miner shall examine his working place before beginning work and take down all dangerous slate or otherwise make it safe by properly timbering it before commencing to mine or load coal. He shall examine his place to see whether the fire boss has left the date marks indicating his examination thereof, and, if said marks cannot be found, it shall be the duty of the miner to notify the mine foreman or the assistant mine foreman of the fact. The miner

shall at all times be careful to keep his working place in a safe condition during working hours.

Should he at any time find his place becoming dangerous from gas or roof, or from any unusual condition that may arise, he shall at once cease working and inform the mine foreman or the assistant mine foreman of said danger, but before leaving his place he shall put some plain warning across the entrance thereto to warn others against entering into danger.

It shall be the duty of the miner to mine his coal properly before blasting and to set sprags under the coal while undermining to secure it from falling. After each blast he shall exercise care in examining the roof and coal, and shall secure them safely before beginning to work.

He shall order all props, cap pieces and all other timbers necessary at least one day in advance of needing them, as provided for in the rules of the mine. If he fails to receive said timbers and finds his place unsafe, he shall vacate it until the necessary timbers are supplied.

When places are liable to generate sudden outbursts of explosive gas, no miner shall be allowed to charge or fire shots, except under the supervision and with the consent of the mine foreman or the assistant mine foreman or some other competent person designated by the mine foreman for that purpose.

The miner shall remain during working hours in the working place assigned to him by the mine foreman or the assistant mine foreman, and he shall not leave his working place for another working place without the permission of the mine foreman, assistant mine foreman or fire boss, and he shall not wander about the hauling roads or enter abandoned or idle workings.

Duties of Driver

Rule 2. When a driver has occasion to leave his trip he must be careful to see that it is left, when possible, in a safe place, secure from cars or other dangers, and where it will not endanger the driver of the trip following.

He must take care while taking his trip down grade to have the brakes or sprags so adjusted that he can keep the cars under control and prevent them from running over himself or others.

He shall not leave any cars standing where they may materially obstruct the ventilating current, except in case of accident to the trip.

He shall not allow any person to ride on loaded mine cars. He shall not allow any person to drive his horse or mules in his stead, unless the person is competent and has the special permission of the mine foreman or the assistant mine foreman. When it is his duty to open a door for the purpose of passing his trip through he shall immediately close it thereafter.

Duties of Trip Rider

Rule 3. The trip rider shall exercise care in seeing that all hitchings are safe for use and that all the trip is coupled before starting, and should he at any time see any material defect in the rope, link or chain he shall immediately remedy said defect, or if he

is unable to do so he shall detain the trip and report the matter to the mine foreman or assistant mine foreman. He shall not allow any person to ride on the full trip. He shall not allow any person to ride on the empty trip, except at the beginning and end of each shift or upon written permission from the mine foreman, and the speed shall not exceed eight miles an hour.

Duties of Engineer

Rule 4. It shall be the duty of the engineer, who shall be a sober, competent person over twenty-one years of age, to keep a careful watch over his engine and all machinery under his charge and to see that the steam pressure does not exceed at any time the limit allowed by the superintendent.

He shall make himself acquainted with the signal codes provided for in this act.

He shall not allow any unauthorized person to enter the engine house, nor shall he allow any person to handle or run the engine without the permission of the superintendent.

When workmen are being lowered or raised he shall take special precautions to keep the engine well under control.

Duties of Motorman and Locomotive Engineer

Rule 5. The motorman or locomotive engineer shall keep a sharp lookout ahead and sound the whistle or alarm bell frequently when coming near the parting switches or landings and shall not exceed the speed allowed by the superintendent or mine foreman. He shall see that the motors, cables and controlling parts are kept clean and in a safe operating condition and that the headlight is burning properly when the locomotive is in motion. He shall not allow any person, except his attendant, to ride on the locomotive or on the full cars.

Duties of Fireman

Rule 6. Every fireman in charge of a boiler or boilers for the generation of steam shall keep a careful watch over the same. He shall see that the steam pressure does not at any time exceed the limit allowed by the superintendent; he shall frequently try the safety valve and shall not increase the weight on the same; he shall maintain a proper depth of water in each boiler, and if anything should happen to prevent this he shall report it without delay to the superintendent or other person designated by the superintendent and take such other action as may under the circumstances be necessary for the protection of life and the preservation of property.

Duties of Fan Engineer

Rule 7. The engineer in charge of the ventilating fan at a mine shall keep it running at such speed as the mine foreman shall direct in writing. He shall also examine at the beginning of each shift all the fan bearings, stays and other parts and see that they are kept in proper working order. He shall report promptly to the mine

foreman or assistant mine foreman any defect in the pressure gauge. In case of accident to the boiler or fan machinery, he shall immediately notify the mine foreman or the assistant mine foreman. If only ordinary repairs of the fan or machinery become necessary, he shall await the instructions of the mine foreman or assistant mine foreman before stopping the fan. Should it become impossible to run the fan or become necessary to stop it to prevent its destruction, he shall notify at once the superintendent or mine foreman, who shall give immediate warning to the persons in the mine.

Duties of Furnaceman

Rule 8. The furnaceman shall be over eighteen years of age and shall attend to his duties with regularity, and in case it is necessary for him to be off duty for any reason whatever he shall give timely notice to the mine foreman.

The furnaceman shall at all times keep a clear, brisk fire and the fire must not be smothered with coal or slack during working hours, and he shall not allow ashes to accumulate excessively on or under the bars or in the approaches to the furnace, and ashes shall be cooled before being removed.

Duties of Hooker-On

Rule 9. The hooker-on at the bottom of any slope shall be over eighteen years of age, and shall be very careful to see that the cars are properly coupled to a rope or chain and that the safety-catch or other device is properly attached to the rear car, before giving the signal to the engineer. He shall not allow any person to ride up the slope on the full trips other than the trip rider.

Duties of Cager

Rule 10. The cager at the bottom of any shaft shall be over eighteen years of age. He shall not attempt to withdraw the car until the cage comes to a rest; and when putting the full car on the cage he must be very careful to see that the springs or catches are properly adjusted so as to keep the car in its proper place, before giving the signal to the engineer.

Duties of Footman

Rule 11. At every shaft or slope where persons are hoisted from the mine a footman (who shall be over twenty-one years of age) shall be designated by the mine foreman. He shall be at his proper place from the time that persons begin to descend until all the persons who may be at the bottom of said shaft or slope, when quitting work at the end of the day, shall be hoisted. The footman shall personally attend to the signals and see that the provisions of this act in respect to hoisting persons in shafts or slopes are complied with.

The footman shall not allow any tools to be placed on the same cage with men or boys or on either cage when they are being hoisted out of the mine, except for the purpose of repairing the shaft or machinery therein. The men shall place their tools in cars pro-

vided for that purpose, which cars shall be hoisted before or after the men have been hoisted. He shall see that no driver or other person ascends the shaft with any horse or mule, unless the said horse or mule is secured in a suitable box or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case. The footman shall immediately inform the mine foreman of any violation of this rule or of general rule fifteen.

Duties of Topman

Rule 12. At every shaft or slope where persons are lowered into the mine a topman or trip rider (who shall be over twenty-one years of age) shall be designated by the superintendent or mine foreman. He shall be at his proper place from the time that persons begin to descend until all the persons who may be at the bottom of the shaft or slope, when quitting work at the end of the day, shall be hoisted. The topman or trip rider shall personally attend to the signals and see that the provisions of this act in respect to lowering persons in shafts or slopes are complied with.

The topman shall not allow any tools to be placed on the same cage with men or boys or on either cage when persons are being lowered into the mine, except for the purpose of repairing the shaft or the machinery therein. The men shall place their tools in cars provided for that purpose, which cars shall be lowered before or after the men have been lowered.

He shall also see that no driver or other person descends the shaft with any horse or mule, unless the said horse or mule is secured in a suitable box or safely penned, and only the driver in charge of said horse or mule shall accompany it in any case.

The topman of a slope or incline plane shall be careful to close the safety block or other device as soon as the cars have reached the landing, in order to prevent any loose or runaway cars from descending the slope or incline plane, and in no case shall said safety block or other device be withdrawn until the cars are coupled to the rope or chain and the proper signal given. He shall carefully inspect each day all the machinery in and about the check house and the rope used for lowering the coal, and shall promptly report to the superintendent any defect discovered, and shall use care in attaching securely the cars to the rope and in lowering them down the incline. He shall ring the alarm bell in case of accident and when necessary immediately set free to act the drop logs or safety switch.

The topman of a shaft shall see that the springs or keeps for the cage to rest upon are kept in good working order and when taking the full car off he must be careful that no coal or other material is allowed to fall down the shaft.

It shall be the duty of the topman to report to the superintendent any violation of general rule fifteen of this article.

General Rules

Rule 1. No unauthorized person shall enter the mine without permission from the superintendent.

Rule 2. No person in a state of intoxication shall be allowed to go into or loiter about the mine.

Rule 3. No person shall be employed to blast coal, rock or slate unless the mine foreman is satisfied that he is qualified by experience to perform the work with ordinary care.

Rule 4. No inexperienced person shall be employed to mine out pillars unless in company with one or more experienced miners and with their consent.

Rule 5. Every workman employed in the mine shall examine his working place before commencing work, and after any stoppage of work during the shift he shall repeat such examination.

Rule 6. Every workman when engaged shall have his attention directed to the general and special rules contained in this act by the person employing him. Said rules shall be posted at a conspicuous place at or near the main entrance to the mine and shall be printed in the various languages of the employes.

Rule 7. All employes shall notify the mine foreman or the assistant mine foreman of the unsafe condition of any working place, hauling roads or travelingways, or of damage to doors, brattices or stoppings, or of obstructions in the air passages, when said conditions are known to them.

Rule 8. No person shall be allowed to travel on foot to and from his work on any hoisting slope, incline plane, dilly or locomotive road unless no other roads are provided for that purpose.

Rule 9. No person shall ride upon or against any loaded car or cage in any shaft or slope in any mine. No person other than the trip rider shall be permitted to ride on empty trips on any slope, incline plane or dilly road when the speed of the cars exceeds eight miles an hour.

Rule 10. No person other than the driver or trip rider shall be allowed to ride on the full cars.

Rule 11. Any person who shall deface, pull down or destroy any notice, board, danger signal, general or special rules, record books or mining laws, shall be prosecuted by the superintendent as provided for in section two of article twenty-six of this act.

Rule 12. All persons are forbidden to meddle or tamper in any way with any electric or signal wires in or about the mine.

Rule 13. No powder or high explosive shall be taken into the mine at one time by any one person in greater quantities than is required for use in one shift and the quantity shall never exceed five pounds, except as provided in article sixteen, section one. All powder shall be carried into the mine in metallic cans or canisters or in receptacles of equally safe material.

Rule 14. No explosive shall be stored in any tipple or weighing office and no naked lights shall be used while the attendant is weighing and giving out explosives.

Rule 15. No greater number of persons shall be lowered or hoisted at any one time in any shaft or slope than is permitted by the inspector, and whenever the said number of persons returning from work shall arrive at the bottom of the shaft or slope in which persons are regularly hoisted or lowered, they shall be promptly furnished with an empty cage or car and be hoisted to the surface, and in cases of emergency a less number than the permitted number shall be promptly hoisted.

Any person crowding or pushing to get on or off the cage or car thereby endangering life shall be deemed guilty of a misdemeanor,

and the superintendent shall prosecute him in accordance with section two of article twenty-six of this act, when the matter is reported to him by the topman or footman.

Rule 16. No safety lamp shall be entrusted to any person for use in a mine until said person has given satisfactory evidence to the mine foreman that he understands the proper use thereof and the danger of tampering with the same.

Rule 17. No one except a person duly authorized by the mine foreman shall have in his possession a key or other instrument for the purpose of unlocking any safety lamp in any mine where locked safety lamps are used. Other persons having keys or other instruments for the opening of safety lamps shall be prosecuted by the superintendent in accordance with section two of article twenty-six of this act.

Rule 18. In the cutting of clay veins, spars or faults, entries or other narrow workings, going into the solid coal, in mines wherein explosive gas is generated in dangerous quantities, a bore hole shall be kept not less than three feet in advance of the face of the work or three feet in advance of any shot hole drilled for a blast to be fired in.

Rule 19. An accumulation of gas in a mine shall not be removed by brushing or when persons in the mine may be endangered thereby.

Rule 20. When gas is ignited by a blast or otherwise the person having charge of the place where the said gas is ignited, shall immediately extinguish it, if possible, and if unable to do so he shall immediately notify the mine foreman or the assistant mine foreman of the fact. Miners must see that no gas blowers are left burning upon leaving their working places. It shall be the duty of the superintendent to prosecute any person for violating this rule, as provided for in section two of article twenty-six of this act.

Rule 21. When a miner or shot-firer is about to fire a blast he shall be careful to notify all persons who may be endangered thereby and shall give sufficient alarm so that any person approaching may be warned of the danger.

Rule 22. Whenever a miner or shot-firer shall open a box containing powder or other explosives, or while in any manner handling the same, he shall first place his lamp not less than five feet from such explosive and in such a position that the air current cannot convey sparks to the explosive, and he shall not smoke while handling explosives.

Rule 23. In charging and tamping a hole for blasting no person shall use any iron or steel needle. The charger or tamping bar shall be of wood or tipped with copper.

Rule 24. No explosive shall be forcibly pressed into a hole that is of insufficient size, and when a hole has been charged the explosive shall not be taken out, and no hole shall be bored for blasting at a distance of less than twelve inches from any hole when the charge has misfired.

Rule 25. In gaseous mines shot firers or other persons charging holes for blasting shall use incombustible material for tamping. All holes before being fired shall be solidly tamped the full length of the hole. Any person who violates this rule shall be deemed guilty of a misdemeanor.

Rule 26. Every abandoned slope, shaft, air hole or drift shall be properly fenced around or across its whole entrance.

Rule 27. No person shall go into an old or abandoned part of any mine or into any other place that is not in actual course of working, without permission from the mine foreman, and no person shall travel to and from his work except by the traveling way assigned for that purpose. It shall be the duty of the mine foreman to prosecute all persons who violate this rule, in accordance with section two of article twenty-six of this act.

Rule 28. Workmen and all other persons are expressly forbidden to commit any nuisances or throw into, deposit or leave coal or dirt, stones or other rubbish in the airway or road so as to interfere with, pollute or hinder the air passing into and through the mine.

Rule 29. No steam pipes through which high pressure steam is conveyed for the purpose of driving pumps or other machinery shall be laid on traveling or haulage ways, unless they are encased in asbestos or some other suitable non-conducting material or so placed that the radiation of heat into the atmosphere of the mine will be prevented as far as possible.

Rule 30. When a steam locomotive is used for the purpose of hauling coal out of a mine, the tunnel or tunnels through which the locomotive passes shall be properly ventilated and kept free as far as practicable of noxious gases, and a ventilating apparatus shall be specially provided by the operator to produce such ventilation.

Rule 31. In all shafts and slopes where persons, coal or other materials are hoisted by machinery, the following code of signals shall be used:

One rap or whistle to hoist coal.

One rap or whistle to stop car or cage when in motion.

Two raps or whistles to lower car or cage.

Three raps or whistles to hoist persons. The engineer shall signal back when ready, after which the person shall get on the car or cage and then one rap shall be given to hoist.

Four raps or whistles to turn on steam to the pumps.

Rule 32. No person shall carry any matches, pipes or other smokers' articles into a mine or part of a mine worked exclusively with locked safety lamps, nor shall he have any of said articles in his possession while in such a mine.

Rule 33. If any person shall receive any injury in or about the mine and the same shall come within the knowledge of the mine foreman, and if he shall be of the opinion that the injured person requires medical or surgical treatment, he shall see that said injured person receives treatment, and in case of inability of such person to pay therefor the expense shall be borne by the county.

Rule 34. The special and general rules in the various languages, and all books, blank forms and notices mentioned in this act, shall be printed at the expense of the state and shall be furnished to the operators by the Department of Mines through the inspectors, and all record books shall at all times be accessible to the inspector.

Rule 35. Every person who contravenes or does not comply with any of the special and general rules in this act shall be deemed guilty of a misdemeanor.

ARTICLE XXVI

Penalties for Violations of This Act

Section 1. Any person who shall intentionally or carelessly injure any safety lamp, instrument, air course or brattice or without proper authority handle, remove or render useless any fencing, means of signaling, apparatus, instrument or machinery, or shall obstruct or throw open airways, or enter a place in or about a mine against caution, or carry fire, open lights, matches, pipes and other smokers' articles beyond any station inside of which locked safety lamps are used, or open a door in the mine and not close it immediately, or open any door the opening of which is forbidden, or disobey any order given in carrying out the provisions of this act, or do any other act whatsoever whereby the lives or the health of the persons employed, or the security of the mine or the machinery, are endangered, shall be deemed guilty of a misdemeanor and shall be punished as provided in section two of this article.

Section 2. Any person who neglects or refuses to perform the duties required of him by this act, or who violates any of the provisions or requirements thereof, shall be deemed guilty of a misdemeanor and shall upon conviction thereof in the court of quarter sessions of the county in which the misdemeanor was committed be punished by a fine not exceeding two hundred dollars or imprisonment in the county jail for a period not exceeding three months, or both, at the discretion of the court. Any violation of this act which has been declared to be a misdemeanor by any part thereof shall be punished in like manner.

ARTICLE XXVII

Inquests

Section 1. Whenever a fatal accident occurs in or about any mine, or whenever an explosion or other serious accident of an unusual nature occurs, whether fatal or not, it shall be the duty of the mine foreman or superintendent in charge of such mine to give notice thereof forthwith by telephone or telegraph to the inspector and also to the coroner of the county, if any person is killed.

Section 2. If the coroner shall determine to hold an inquest, he shall notify the inspector of the time and place of holding the same, and the inspector shall offer such testimony as he may deem necessary to thoroughly inform the said inquest of the cause of the death. He shall also have authority at any time to appear before such coroner or jury and examine or cross-examine any witness. No person who is directly or indirectly interested or employed in any capacity by the person, persons or company owning or operating such mine, or employed in or about any other mine in which such owners or operators may be interested, shall be competent to serve upon such coroner's jury.

Section 3. It shall be the duty of the inspector, upon being notified of any fatal accident as hereinbefore provided, to proceed in person as soon as practicable to the scene of the accident and make such suggestions or give such directions as may appear to him neces-

sary to secure the safety of any person who may still be endangered through said accident. Whether or not the results of the accident require an investigation by the coroner, the said inspector shall proceed to investigate and ascertain the cause of the accident and make a record thereof, which he shall file as provided for; and to enable him to make the investigation he shall have power to compel the attendance of persons to testify and also to administer oaths or affirmations. If it is found upon investigation that the accident is due to the violation of any provisions of this act by any person other than those who may be deceased, the inspector shall institute proceedings against such person or persons as provided for in section two of article twenty-six of this act.

Section 4. The cost of such investigation shall be paid by the county in which the accident occurred in the same manner as costs of inquests held by coroners or justices of the peace are paid.

ARTICLE XXVIII

Definitions

Section 1. Mine. In this act the term "mine" includes the shafts, slopes, drifts or inclined planes connected with excavations penetrating coal stratum or strata, which excavations are ventilated by one general air current or divisions thereof, *and connected by one general system of mine railroads over which coal may be delivered to one or more points outside the mine when such is operated by one operator. The term "mine" shall also apply to shafts being sunk to the coal.*

Excavations and Workings. The term "excavations and workings" includes all the excavated parts of a mine, those abandoned as well as the places actually being worked; also all underground workings and shafts, tunnels and other ways and openings; and all such shafts, slopes, tunnels and other openings in the course of being sunk or driven, together with all roads, appliances, machinery and material connected with the same below the surface.

Shaft. The term "shaft" means a vertical opening through the strata that is or may be used for the purpose of ventilation or drainage or for hoisting men or material, or both, in connection with the mining of coal.

Slope. The term "slope" means an incline way or opening used for the same purpose as a shaft. The term "slope" shall also apply to slopes being sunk to the coal.

Operator. The term "operator" means any firm, corporation or individual operating any coal mine or any part thereof.

Superintendent. The term "superintendent" means the person who shall have on behalf of the operator immediate supervision of one or more mines.

Mine Foreman. The term "mine foreman" means the person whom the operator or superintendent shall place in charge of the inside workings of the mine and of the persons employed therein.

Inspector. The term "inspector" means the person appointed by the Governor to have supervision of mines.

Bituminous Mines. The term "bituminous mines" shall include all coal mines in the state not now included in the anthracite boundaries; and wherever the term "mine" appears in this act it shall be construed to mean "bituminous coal mine."

Approved Safety Lamp. The term "approved safety lamp" shall mean such a lamp as approved by the Chief of the Department of Mines and whose approval has not been withdrawn.

The provisions of this act shall not apply to any mine employing less than five persons in any one period of twenty-four hours.

ARTICLE XXIX

Section 1. All acts or parts of acts inconsistent herewith be and the same are hereby repealed.

PRODUCTION AND ACCIDENTS

When the question of accidents has been treated of heretofore in the annual reports of the Department, it has been the custom to hold up to criticism the companies whose records have been unfavorable. In the report this year while we bestow the usual criticism upon the companies whose records seem to indicate carelessness or lack of intelligence in their management, we also take pleasure in giving commendation to the companies whose exceptionally good records are deserving of attention. Tables designated as Tables of Honor are therefore printed herewith showing the companies that have during a period of years conducted their mines without a single fatal accident or with a very small number of accidents. Every company that produced 400,000 tons or over without a fatal accident is entitled to honorable mention.

Table No. 1 shows the companies that worked for ten years, 1900-1909, without any fatal accidents. The Stineman Coal and Coke Company produced during that time 2,730,355 tons, and many other companies produced a tonnage varying from 291,927 tons to 1,076,-271 tons. This is a most remarkable record.

Table No. 2 shows the companies that worked for eight or nine years—1901-1909—without any fatal accidents. The production ranges from 331,592 tons to 648,692 tons.

Table No. 3 shows the companies that worked five, six or seven years—1903-1909—without any fatal accidents. The production ranges from 259,093 tons to 1,301,980 tons. The Saltsburg Coal Company produced the latter tonnage and is especially to be commended.

Table No. 4 shows the companies that produced over 300,000 tons per each fatal accident during the ten years—1900-1909. The production in this table ranges from 303,189 tons to 2,522,781 tons. The companies that produced over a million tons per fatal accident are to be congratulated upon their successful management. These companies were Peale, Peacock and Kerr, Blossburg Coal Company, Empire Coal Company, Moshannon Coal Company, John McLeavy and Company, Cymbria Coal Company and Butts Cannel Coal Company. Three companies, Morrisdale Coal Company, Sterling Coal

Company and Jefferson Coal Company, led all the others with a production averaging over 2,341,000 tons per life lost, a record that deserves the highest praise. The average production of all the companies on this table per life lost is 397,016, an average greater than that of Great Britain or of any other country or State for a period of ten years where there is a production of over 300,000,000 tons.

These tables show conclusively the skill and care that have been exercised in operating the mines, and the managers, superintendents and foremen should all be proud of the work they have accomplished.

TABLE OF HONOR NO. 1—1900-1909

Names of Companies	Production
Stineman Coal and Coke Co.,	2,730,355
State Line Coal Co.,	1,076,271
John Langdon,	974,561
Keystone Mining Co.,	947,621
Stewart Iron Co., Limited,	946,891
Colonial Iron Co.,	873,964
Acme Coal Mining Co.,	772,700
W. B. Skelly Coal Co.,	726,465
Ghem Coal Co.,	680,205
S S. Hagerty and Sons,	642,100
Gilpin Coal Co.,	635,395
Bulah Coal Co.,	590,655
Pine Run Coal and Coke Co.,	565,628
Maher Coal and Coke Co.,	517,902
B. F. Keister and Co.,	494,804
Henrietta Coal Co.,	493,277
Lewis Coal Co.,	490,039
Blair Brothers Coal Co.,	488,522
Hamilton Coal Mining Co.,	468,169
Standard Coal Co., Limited,	460,090
Thompson Run Coal Co.,	428,637
Clearfield and Cambria Coal and Coke Co.,	381,871
Standard Coal Mining Co.,	365,490
West Penn Mining Co.,	323,040
Cherry Run Coal Co.,	310,868
Nellie Coal Co.,	291,927

TABLE OF HONOR NO. 2. -1901-1909

Names of Companies	Production
Betz Coal Mining Co.,	648,692
Somerset Mining Co.,	637,490
Henry Liveright,	521,246
Eagle Coal Co.,	494,310
Ray Coal Co.,	456,128
Pennsville Coke Co.,	434,032
Veteran Coke Co.,	419,380
Ellsworth-Dunham Coal Co.,	408,412
Cochran Brothers,	382,825
Ashman Coal Co.,	345,144
John M. Greek and Co.,	345,126
Blairsville Coke Co., Limited,	342,110
Carrier Brothers,	338,364
E. A. Humphries and Co.,	331,592

TABLE OF HONOR NO. 3—1903-1909

Names of Companies	Production
Saltsburg Coal Co.,	1,301,980
Penn Coke Co.,	987,718
Big Bend Coal Mining Co.,	784,282
McKeefrey Coal Co.,	687,790
Falls Creek Coal Co.,	612,691
Amyville Youghiogheny Gas Coal Co.,	552,421
Anita Coal Mining Co.,	492,636
John Barnes and Sons,	488,522
Whyel Coke Co.,	437,581
Isaac Taylor and Co.,	406,025
Hillsdale Coal and Coke Co.,	398,055
Continental Coal Co.,	385,156
Hedstrom Coal Mining Co.,	369,673
Fort Ligonier Coal Co.,	352,337
McKean Coal Co.,	344,137
Burrell Coal Co.,	333,803
Kirkbride Coal Co.,	330,930
Wampum Run Coal Co.,	327,606
Clearfield and Grampian Coal Co.,	326,261
Mahoning Coal Co.,	312,628
Rich Hill Coke Co.,	311,134
Paulton Coal Mining Co.,	309,337
Robert Smith,	307,631
S. J. Mountz and Co.,	304,153
H. W. and J. T. Todd,	301,596
Stony Creek Coal Co.,	291,768
Shade Coal Mining Co.,	286,926
Jackson Mining Co.,	279,483
C. P. McCafferty,	276,924
Clearfield Coal Mining Co.,	273,941
Haws Coal Co.,	259,446
Dixon Brothers,	259,093

TABLE OF HONOR NO. 4—1900-1909

Names of Companies	Number of gaseous mines	Number of non-gaseous mines	Total number of mines	Fatal Accidents Inside						Production of coal in tons	Number of tons produced per life lost
				By falls	By cars	By explosions of gas and dust	By electricity	By miscellaneous causes	Total number of accidents		
H. C. Frick Coke Co.,	41	24	65	244	94		3	31	372	115,857,165	311,445
Jefferson and Clearfield Coal and Iron Co.,	1	12	13	37	13	1	6	6	63	21,344,007	338,794
New York and Cleveland Gas Coal Co.,	1	6	7	23	11			1	35	15,047,513	429,929
Clearfield Bituminous Coal Corporation,	1	11	12	12	2			2	16	13,491,685	843,230
Washington Coal and Coke Co.,	3		3	15	8			3	26	12,676,697	487,565
Penn Gas Coal Co.,	5		5	25	2			4	31	10,143,063	327,196
Oliver and Snyder Steel Co.,	3		3	18	4			2	24	8,898,732	370,781
Northwestern Mining and Exchange Co.,		8	8	22	2		1		25	8,877,012	355,080
Peale, Peacock and Kerr, Incorporated,		12	12	3	1				4	6,150,106	1,537,527
Shawmut Mining Co.,		8	8	9			1	2	12	5,675,914	472,993
Morrisdale Coal Mining Co.,		9	9	1	1				2	4,762,484	2,381,242
Ocean Coal Co.,	2		2	12	2				14	4,337,625	309,830
Barnes and Tucker,		7	7	3	1				4	3,751,424	937,856
Blossburg Coal Co.,		6	6	2					2	3,416,648	1,708,324
Morris Run Coal Mining Co.,		2	2	6	2				8	3,057,558	382,195
Logan Coal Co.,		5	5	5	2				7	3,035,057	433,580
Brown and Cochran,		1	1	3	1			2	6	2,784,671	464,112
Kettle Creek Coal Mining Co.,		3	3	5	2				7	2,716,561	388,080
Altoona Coal and Coke Co.,		2	2	7	1				8	2,570,729	321,341
Empire Coal Mining Co.,		3	3	2					2	2,562,900	1,281,450
Sterling Coal Co.,	1	3	4					1	1	2,522,781	2,522,781
Fairmount Coal Co.,		6	6	7	1				8	2,425,514	303,189
Madeira-Hill Coal Mining Co.,		6	6	4				1	5	2,396,650	479,330
Latrobe Coal Co.,	1		1	4					4	2,291,887	572,972
Irish Brothers,		10	10	2	1		1		4	2,202,202	550,550
Jefferson Coal Co.,		2	2	1					1	2,119,079	2,119,079
Henrietta Coal Mining Co.,		2	2	1	1				2	1,994,544	997,272
Cambria Coal Mining Co.,		7	7	4					4	1,859,286	464,822
Atlas Coke Co.,	1		1	1	2			2	5	1,701,186	340,273
Puritan Coal Mining Co.,		2	2	1			1	1	3	1,695,346	565,115

TABLE NO. 4—Continued

Names of Companies	Number of gaseous mines	Number of non-gaseous mines	Total number of mines	Fatal Accidents Inside						Production of coal in tons	Number of tons produced per life lost
				By falls	By cars	By explosions of gas and dust	By electricity	By miscellaneous causes	Total number of accidents		
W. H. Piper,		2	2	2	1				3	1,561,493	520,498
Duncan and Spangler Coal Co.,		3	3	3					3	1,546,984	515,661
Pennsylvania Salt Manufacturing Co.,		2	2		1		1		2	1,532,506	766,253
Taylor and McCoy Coal and Coke Co.,		1	1	1				1	2	1,503,044	751,522
Joseph Wharton,		2	2	2	1				3	1,499,997	499,999
Moshannon Coal Mining Co.,		8	8	1					1	1,477,883	1,477,883
John McLeavy and Co.,		2	2		1				1	1,346,113	1,346,113
Avonmore Coal and Coke Co.,		1	1	4					4	1,321,195	330,299
Allport Coal Co.,		1	1	3	1				4	1,263,303	315,826
Urey Ridge Coal Co.,		3	3	3					3	1,228,019	409,340
Cambria Coal Co.,		2	2	1					1	1,155,972	1,155,972
Joseph G. Beale and Co.,		2	2	2					2	1,081,785	540,893
Butts Cannell Coal Co.,		2	2				1		1	1,018,780	1,018,780
Indiana Coal Co.,		5	5	3					3	1,006,047	335,349
Nant Y Glo Coal Mining Co.,		2	2	1	1				2	989,274	494,637
Oak Ridge Coal and Coke Co.,		2	2	1	1				2	976,710	488,355
McFetridge Brothers,	1		1					1	1	965,630	965,630
Grove Coal Co.,		1	1	1					1	965,459	965,459
Joseph E. Thropp,		4	4	3					3	947,582	315,861
Kelly Brothers Coal Co.,		4	4	2				1	3	940,750	313,550
Leechburg Coal and Coke Co.,	1	1	2	2					2	914,637	457,319
Spring Hill Gas Coal Co.,		1	1	2					2	868,480	434,240
Beaver Coal and Coke Co.,		2	2	1					1	806,890	806,890
Lilly Coal Co.,		1	1	1					1	799,696	799,696
Graff Coal Co.,		1	1	2					2	790,626	395,313
Mercer Iron and Coal Co.,		1	1	1				1	2	768,180	384,090
Red Run Coal Co.,		3	3					2	2	665,425	332,712
George Pearce and Sons,		2	2	2					2	650,913	325,456
F. A. Mizner,		1	1	2					2	645,438	322,719
Monterey Coal Co.,		1	1	1					1	567,388	567,388

Star Coal Co.,	1		1	1					1	521,042	521,042
Priscilla Coal Mining Co.,		1	1	1					1	510,313	510,313
Haddon Coal Co.,		1	1					1	1	477,474	477,474
Bagdad Coal and Coke Co.,		1	1		1				1	471,116	471,116
Cheat Haven Coal and Coke Co.,		1	1	1					1	430,854	430,854
A. J. Haws and Sons, Limited,		2	2	1					1	422,051	422,051
Thomas J. Lee,		2	2	1					1	409,253	409,253
Thomas Blythe,		2	2	1					1	358,846	358,846
E. Eichelberger and Co.,		2	2		1				1	311,097	311,097
Totals and average,	63	232	295	532	163	1	15	65	776	308,084,271	397,016
Percentages,				68.55	21.00	.13	1.93	8.39			

ACCIDENT TABLES

TABLE 1.—Number of minor children killed inside and outside the mines, 1909

Districts	Inside							Outside						Grand totals inside and outside
	Boys 20 years	Boys 19 years	Boys 18 years	Boys 17 years	Boys 16 years	Boys 15 years	Boys 14 years	Totals	Boys 20 years	Boys 19 years	Boys 18 years	Boys 17 years	Totals	
First,		1						1						1
Second,	3		1	1				5		1	1	1	3	8
Third,						1		1						1
Fourth,										1			1	1
Fifth,			1	1				2						2
Sixth,	3	3	1	1				8						8
Seventh,	2							2						2
Eighth,														
Ninth,	1			1				2	1				1	3
Tenth,	2	1						3				1	1	4
Eleventh,			1					1						1
Twelfth,		2			2			4						4
Thirteenth,	1	1			1			3						3
Fourteenth,	1			1				2						2
Fifteenth,			1	1	1			3						3
Sixteenth,	1		1	1	1			4						4
Seventeenth,		4						4						4
Eighteenth,														
Nineteenth,	2			1	1	1	1	6						6
Twentieth,				1				1			1		1	2
Twenty-first,		2						2						2
Totals,	16	14	6	9	6	2	1	54	1	2	2	2	7	61

Note: This table shows that only one minor under fifteen years of age was killed inside the mines and none under seventeen outside the mines. Between the ages of fourteen and twenty years 54 were killed inside, and between the ages of seventeen and twenty 7 were killed outside, making a total of 61.

TABLE 2.—Number and causes of fatal accidents inside the mines; production; employes; lives lost per 1,000 employed; production per life lost; lives lost per 1,000,000 tons produced, 1909

Counties	Fatal Accidents						Production	Employes inside	Lives lost inside per 1,000 employed	Tons of coal produced per life lost inside	Lives lost inside per 1,000,000 tons produced
	By falls	By cars	By explosions of gas and dust	By electricity	By miscellaneous causes	Totals					
Westmoreland,	69	22	------	------	4	95	26,020,845	23,380	4.06	273,904	3.65
Fayette,	53	21	1	1	6	82	28,252,379	22,490	3.65	344,541	2.90
Allegheny,	30	7	------	6	1	44	15,254,743	18,767	2.34	346,699	2.88
Washington,	37	13	------	7	1	58	13,305,443	15,225	3.81	229,404	4.36
Cambria,	41	7	20	1	7	76	15,259,796	22,113	3.44	200,787	4.98
Jefferson,	8	2	1	------	1	12	5,133,579	5,428	2.21	427,798	2.34
Somerset,	14	6	5	4	7	36	7,278,894	8,438	4.27	202,192	4.95
Clearfield,	6	1	------	2	1	10	7,268,358	10,487	.95	726,839	1.38
Indiana,	15	1	21	------	1	38	8,029,856	9,550	3.97	211,312	4.73
Totals,	273	80	48	21	29	451	125,803,893	135,878	3.32	278,944	3.58
Armstrong,	9	1	------	1	1	12	2,595,014	3,369	3.56	216,251	4.62
Elk,	2	------	------	------	1	3	1,221,858	1,798	1.67	407,286	2.46
Centre,	3	------	------	------	------	3	1,257,131	1,852	1.62	419,044	2.39
Huntingdon,	------	------	------	------	------	------	463,717	1,150	------	------	------
Butler,	------	------	------	------	------	------	843,789	1,384	------	------	------
Tioga,	------	1	------	------	------	1	848,282	1,845	.54	848,282	1.18
Mercer,	2	------	------	------	1	3	876,261	1,418	2.12	292,087	3.42
Blair,	------	------	------	------	------	------	209,557	360	------	------	------
Bedford,	------	------	------	------	------	------	417,000	945	------	------	------
Clinton,	------	------	------	------	------	------	264,787	313	------	------	------
Clarion,	2	------	------	------	------	2	892,695	1,413	1.42	446,348	2.24
Lawrence,	------	------	------	------	------	------	154,126	248	------	------	------
Greene,	------	------	------	------	------	------	113,941	83	------	------	------

TABLE 2—Continued

Counties	Fatal Accidents						Production	Employes inside	Lives lost inside per 1,000 employed	Tons of coal produced per life lost inside	Lives lost inside per 1,000,000 tons produced
	By falls	By cars	By explosions of gas and dust	By electricity	By miscellaneous causes	Totals					
Lycoming,	------	------	------	------	------	------	30,444	42	------	------	------
Beaver,	------	------	------	------	------	------	202,851	295	------	------	------
Bradford,	------	------	------	------	------	------	10,349	31	------	------	------
Totals,	18	2	------	1	3	24	10,401,802	16,546	1.45	433,408	2.30
Grand totals and averages,	291	82	48	22	32	475	136,205,695	152,424	3.12	286,749	3.49

Note: This table shows that in the first nine counties named, 125,803,893 tons of coal were produced by 135,878 inside employes, an average of 925 tons per employe. Of these employes 451 were killed. For each life lost inside the production was 278,944 tons and 3.58 lives were lost for every million tons produced. The other sixteen counties produced only 10,401,802 tons. The number of inside employes was 16,546, and the average production per employe was 629 tons. Of these employes 24 were killed. For each life lost the production was 433,408 tons, and 2.30 lives were lost for every million tons produced.

In the first nine counties for every 1,000 persons employed inside 3.32 lives were lost. In the other sixteen counties for every 1,000 persons employed inside only 1.45 lives were lost. The latter record is about as good as that made in any foreign country.

It will be noted that no lives were lost inside the mines in the counties of Huntingdon, Butler, Blair, Bedford, Clinton, Clarion, Lawrence, Greene, Lycoming, Beaver and Bradford. These counties employed inside 4,851 persons and produced 2,710,561 tons. The inspectors, superintendents and foremen of the mines in these counties are to be commended for this excellent showing.

Table 3—Nationality of Employes Killed by Falls

From the statistics received from 98 per cent. of the operators in the bituminous region we estimate that the so-called English speaking employes, including Americans, English, Welsh, Scotch, Irish and Germans, comprise one-third of the inside employes at the present time, and the so-called foreigners or non-English speaking employes, two-thirds. The total number of inside employes in 1909 was 152,424. Of this number 50,808, or 33.33 per cent., may be classed as English speaking employes and 101,616, or 66.67 per cent., as non-English speaking employes.

The proportion of the outside employes is different. The total number of outside employes in 1909 was 33,497, two-fifths of which, 13,399, were English speaking and 20,098, or three-fifths non-English speaking. The figures therefore show that of the total number of employes inside and outside the mines 64,207 were English speaking, and 121,714 non-English speaking, or 34.53 per cent. of the former and 65.47 of the latter.

Table 3 herewith, based upon the figures given above relating to inside employes, shows that 226 non-English speaking employes were killed by falls and only 65 of the English speaking employes. These figures indicate that 77.66 per cent. of the accidents by falls occurred among the non-English speaking employes, and 22.34 per cent. among the English speaking employes. This can be taken as an argument in favor of the statement that the increase in accidents during the past ten years has been due largely to the great proportion of non-English speaking employes inside the mines.

If the accidents by falls were in proportion to the number of persons employed inside, the loss of life among the English speaking miners would have been about 97 instead of 65, and the accidents among the non-English speaking would have been 194 instead of 226. The accidents among the English speaking employes were 32 less than their proportionate number according to the total number employed, and the accidents among the non-English speaking employes were 32 more than their proportionate number according to the total number employed.

The Table also shows that of the 226 fatal accidents among non-English speaking employes, 178, or 78.76 per cent., occurred at or near the face of the workings; 34, or 15.04 per cent., while the employes were removing pillars, and 14, or 6.20 per cent., while the employes were repairing roadways or while they were going to or from work. Also that of the 65 fatal accidents among the English speaking employes, 41, or 63.08 per cent., occurred at or near the face of the workings; 10, or 15.38 per cent. while the employes were removing pillars, and 14, or 21.54 per cent., while the employes were repairing roadways or while they were going to or from work.

These figures indicate that a larger percentage of English speaking employes is employed in removing pillars and repairing roadways than of non-English speaking employes. Taking into account the total number of inside accidents by falls it is seen that 219, or 75.26 per cent., occurred at or near the face; 44, or 15.12 per cent., while the employes were removing pillars, and 28, or 9.62 per cent., while the employes were repairing roadways or while they were going to or from work.

TABLE 3—Nationality by birth of employes killed by falls, 1909.

Districts	Foreigners				Americans*				
	By falls at or near face	By falls while taking out pillars	By falls on roads in going to or from work	Totals	By falls at or near face	By falls while taking out pillars	By falls on roads in going to or from work	Totals	Grand totals
First,	17			17			1	1	18
Second,	27			27	6			6	33
Third,	3			3	2			2	5
Fourth,	7	1		8		2	1	3	11
Fifth,	8	1		9	1		1	2	11
Sixth,	15	2	2	19	2			2	21
Seventh,	7			7	2			2	9
Eighth,	1			1	1	2		3	4
Ninth,	1	11	1	13			3	3	16
Tenth,	6	2	1	9	2		2	4	13
Eleventh,	7	4	2	13	1			1	14
Twelfth,	7	4		11	3	1		4	15
Thirteenth,	10	2		12	1	1	1	3	15
Fourteenth,	6	1	1	8			1	1	9
Fifteenth,	12			12	5			5	17
Sixteenth,	8	1	2	11	1	1	2	4	15
Seventeenth,	11	1	2	14	6		1	7	21
Eighteenth,	1			1	1			1	2
Nineteenth,	8		2	10	1	1	1	3	13
Twentieth,	5	2		7	2	2		4	11
Twenty-first,	11	2	1	14	4			4	18
Totals,	178	34	14	226	41	10	14	65	291

*English-speaking employes, including Americans, English, Scotch, Irish, Welsh and Germans.

TABLE 4—Nationality by birth of employes killed by falls, 1909

Nationality	Districts																					
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Totals
American		6	2	1	2	2	1	1		1		4	2	1	2	4	5		1	3	1	39
English	1							2	1						1				1	1	1	8
Scotch				2			1		1	1					1		1		1		1	9
Irish										1			1					1				3
German									1	1	1				1		1				1	6
Polish	2	6			2	5	3	1	6	2	2	2	3	4	2	1	2	1	1	2	4	51
Hungarian						2				1	1		2	1	2	3	1					13
Italian	1	4	2	4	1	2				1	2	5	2	2	3		4		3	5	4	45
Slavonian	8	6			5	7			4	2	8	1	2	1	3	5	4		3		3	62
Lithuanian	1			1			1					1							1			5
Austrian		8		1	1	1	2		1	2		1	2		2	1	1		2		1	26
Russian	5	3					1			1			1								2	13
Swedish			1	2																		3
French																	1					1
Belgian						1																1
Granish																	1					1
Croatian						1						1				1						3
Magyar									2													2
Totals	18	33	5	11	11	21	9	4	16	13	14	15	15	9	17	15	21	2	13	11	18	291

TABLE 5—Number and causes of fatal accidents inside the mines, by districts, 1909

Districts	Names of Counties or Parts of Counties in Each District	By falls	Percentages by falls	By cars	Percentages by cars	By explosions of gas and dust	Percentages by explosions of gas and dust	By electricity	Percentages by electricity	By miscellaneous causes	Percentages by miscellaneous causes	Totals
First,	Allegheny, Washington, Fayette,	18	69.23	5	19.23			3	11.54			26
Second,	Westmoreland,	33	80.49	7	17.07					1	2.44	41
Third,	Armstrong, Butler, Beaver, Clarion, Lawrence, Mercer,	5	71.42							2	28.58	7
Fourth,	Armstrong, Clarion, Clinton, Clearfield, Jefferson, Elk,	11	78.58	1	7.14			1	7.14	1	7.14	14
Fifth,	Fayette,	11	64.71	3	17.65	1	5.88	1	5.88	1	5.88	17
Sixth,	Cambria, Indiana, Somerset, Westmoreland,	21	38.89	7	12.96	20	37.04	2	3.71	4	7.40	54
Seventh,	Allegheny, Beaver, Washington,	9	56.25	3	18.75			3	18.75	1	6.25	16
Eighth,	Bradford, Centre, Clearfield, Clinton, Lycoming, Tioga,	4	66.66	1	16.67			1	16.67			6
Ninth,	Fayette, Somerset,	16	72.72	5	22.73					1	4.55	22
Tenth,	Blair, Cambria, Clearfield, Indiana,	13	33.33	2	5.13	21	53.85			3	7.69	39
Eleventh,	Fayette, Westmoreland,	14	70.00	5	25.00					1	5.00	20
Twelfth,	Armstrong, Clearfield, Indiana, Jefferson,	15	68.17	3	13.64	1	4.55	1	4.55	2	9.09	22
Thirteenth,	Allegheny, Fayette, Westmoreland,	15	75.00	3	15.00			2	10.00			20
Fourteenth,	Allegheny, Armstrong, Butler, Indiana, Westmoreland,	9	59.99	5	33.34			1	6.67			15
Fifteenth,	Cambria, Clearfield, Indiana,	17	85.00	1	5.00					2	10.00	20
Sixteenth,	Fayette, Greene, Washington,	15	51.72	10	34.48					4	13.80	29
Seventeenth,	Allegheny, Washington,	21	80.77	4	15.38			1	3.85			26
Eighteenth,	Bedford, Centre, Clearfield, Huntingdon,	2	100.00									2
Nineteenth,	Allegheny, Westmoreland,	13	54.17	9	37.50					2	8.33	24
Twentieth,	Somerset,	11	39.30	3	10.71	5	17.86	3	10.71	6	21.42	28
Twenty-first,	Fayette, Washington, Westmoreland,	18	66.67	5	18.52			3	11.11	1	3.70	27
	Totals and percentages,	291	61.26	82	17.26	48	10.11	22	4.63	32	6.74	475

TABLE 6—Number and causes of fatal accidents inside the mines; production; employes; lives lost per 1,000 employed; production per life lost; lives lost per 1,000,000 tons produced, 1899-1909

Years	Fatal Accidents by										Total number of fatal accidents inside	Number of inside employes	Production	Lives lost inside per 1,000 employed	Tons of coal produced per life lost inside	Lives lost inside per 1,000,000 tons produced
	Falls		Cars		Explosions of Gas and Dust		Electricity		Miscellaneous Causes							
	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages	Number	Percentages						
1899,	163	65.20	40	16.00	29	11.60	5	2.00	13	5.20	250	74,933	73,066,945	3.34	292,268	3.42
1900,	166	65.35	42	16.54	6	2.36	6	2.36	34	13.39	254	89,736	79,318,362	2.83	312,277	3.20
1901,	187	65.38	43	15.04	27	9.44	8	2.80	21	7.34	286	95,562	80,914,236	2.99	282,916	3.53
1902,	223	50.45	47	10.63	*126	28.51	11	2.49	35	7.92	442	110,015	98,529,122	4.02	222,916	4.48
1903,	238	63.47	60	16.00	23	6.13	10	2.67	44	11.73	375	123,954	103,713,982	3.03	276,571	3.61
1904,	237	46.29	51	9.96	†180	35.16	12	2.34	32	6.25	512	129,523	99,600,167	3.95	194,532	5.14
1905,	298	67.12	57	12.84	29	6.53	9	2.03	51	11.48	444	135,890	119,361,514	3.26	268,832	3.71
1906,	305	67.03	84	18.46	10	2.20	26	5.72	30	6.59	455	141,862	129,532,989	3.24	284,688	3.51
1907,	307	40.08	102	13.32	‡276	36.03	23	3.00	58	7.57	766	150,371	149,559,047	5.08	195,247	5.12
1908,	262	47.64	76	13.82	§161	29.27	20	3.64	31	5.63	550	152,536	114,937,375	3.60	208,977	4.78
1909,	291	61.26	82	17.26	48	10.11	22	4.63	32	6.74	475	152,424	136,205,695	3.12	286,749	3.49
Totals, percentages and averages,	2,677	55.67	684	14.22	915	19.03	152	3.16	381	7.92	4,809	1,356,806	1,184,739,434	3.54	246,359	4.06

*Rolling Mill disaster, 112.
†Harwick disaster, 177.
‡Darr disaster, 239; Naomi disaster, 34; total, 273.
§Marianna disaster, 154.

TABLE 7—Number of mines in operation, production, number of inside employes, number of lives lost inside, production per life lost inside and number of lives lost inside per 1,000,000 tons produced, in each district, 1909

Districts	Mines in operation	Production	Inside employes	Lives lost inside	Production per life lost	Lives lost per 1,000,000 tons produced
First,	31	5,769,941	7,250	26	221,921	4.51
Second,	54	8,689,340	7,026	41	211,935	4.72
Third,	78	3,565,252	5,567	7	509,322	1.96
Fourth,	64	6,337,112	7,871	14	452,651	2.21
Fifth,	60	7,216,028	5,359	17	424,472	2.36
Sixth,	66	7,833,115	10,112	54	145,058	6.89
Seventh,	47	7,152,877	9,116	16	447,055	2.24
Eighth	105	3,924,068	6,487	6	654,011	1.53
Ninth,	45	7,946,296	5,343	22	361,195	2.77
Tenth,	84	5,397,972	8,889	39	138,500	7.22
Eleventh,	65	7,794,985	6,132	20	389,749	2.57
Twelfth,	76	7,768,463	8,615	22	353,112	2.83
Thirteenth,	32	6,316,405	6,996	20	315,820	3.16
Fourteenth,	66	5,676,494	6,174	15	378,433	2.64
Fifteenth,	105	7,272,987	10,348	20	363,649	2.75
Sixteenth,	46	7,082,047	6,585	29	244,209	4.09
Seventeenth,	36	6,006,011	8,089	26	231,000	4.33
Eighteenth,	118	3,053,509	5,556	2	1,526,754	.66
Nineteenth,	30	7,920,205	7,405	24	330,008	3.03
Twentieth,	68	5,575,644	6,211	28	199,130	5.02
Twenty-first,	38	7,906,944	7,293	27	292,850	3.41
Totals and averages,	1,314	136,205,695	152,424	475	286,751	3.49

TABLE 8—Causes of fatal accidents inside the mines and production per accident, by counties, 1888-1909

Counties	Fatal Accidents					Production	Production per fatal accident inside	Lives lost inside per 1,000,000 tons produced	Number of inside employes
	By falls	By cars	By explosions of gas and dust	By miscellaneous causes	Totals				
Westmoreland,	815	194	378	137	1,524	322,790,553	211,804	4.72	329,009
Fayette,	677	201	139	151	1,168	315,106,253	269,782	3.71	270,416
Allegheny,	590	116	189	75	970	224,651,974	231,600	4.32	315,099
Cambria,	331	73	143	52	599	168,274,520	280,926	3.56	246,556
Washington,	474	109	189	78	850	139,949,556	164,647	6.07	174,439
Clearfield,	191	33	2	46	272	128,342,288	471,847	2.12	204,266
Jefferson,	178	52	17	42	289	111,418,248	385,530	2.59	125,173
Somerset,	126	49	5	52	232	67,629,147	291,505	3.43	87,213
Indiana,	97	20	25	14	156	46,872,940	300,468	3.33	63,719
Armstrong,	57	10	------	16	83	28,398,883	342,155	2.92	41,686
Elk,	36	4	------	4	44	21,787,370	495,168	2.02	33,253
Tioga,	19	6	------	1	26	17,567,499	675,673	1.48	36,994
Centre,	27	------	------	2	29	15,770,854	543,823	1.84	25,577
Mercer,	11	2	------	4	17	13,042,189	767,188	1.30	22,874
Clarion,	17	2	------	------	19	12,771,911	672,206	1.49	22,399
Bedford,	12	------	------	3	15	10,989,408	732,627	1.37	20,225
Butler,	19	------	------	3	22	8,352,443	379,657	2.63	15,524
Huntingdon,	12	4	------	8	24	8,147,807	339,492	2.95	15,056
Blair,	10	4	------	------	14	6,378,608	455,615	2.19	11,210
Clinton,	12	2	------	17	31	4,552,614	146,859	6.81	5,669
Beaver,	------	------	------	------	*	4,099,300	----------	--------	7,353
Lawrence,	4	1	------	1	6	3,857,708	642,951	1.56	8,074
Lycoming,	------	------	------	1	1	1,274,108	1,274,108	.78	2,040
Bradford,	1	------	------	------	1	923,787	923,787	1.08	1,742
Greene,	2	------	------	1	3	870,574	290,191	3.44	1,038
McKean,	------	------	------	------	*	388,898	----------	--------	740
Cameron,	------	------	------	------	*	171,717	----------	--------	346

*No fatal accidents inside.

TABLE 9—Number of employes inside and outside the mines, number of fatal accidents per 1,000 employes, number of tons of coal mined per fatal accident, 1890-1909

Years	Inside				Outside			Number of lives lost inside and outside per 1,000 employes
	Employes	Fatal accidents	Lives lost per 1,000 employed	Production of coal in tons of 2,000 pounds for each life lost	Employes	Fatal accidents	Lives lost per 1,000 employed	
1890,	54,753	141	2.58	289,248	12,630	5	.40	2.17
1891,	61,010	234	3.84	178,580	13,125	3	.23	3.20
1892,	65,857	129	1.96	361,059	12,948	5	.38	1.70
1893,	69,784	130	1.86	334,014	12,088	1	.08	1.60
1894,	73,451	123	1.67	323,579	12,667	--------	--------	1.50
1895,	71,471	152	2.12	340,909	13,505	4	.30	1.84
1896,	71,559	174	2.43	288,929	12,244	6	.49	2.15
1897,	73,426	143	1.95	382,693	13,127	7	.53	1.73
1898,	73,709	190	2.45	338,145	14,094	10	.71	2.28
1899,	74,933	250	3.34	292,267	16,572	8	.48	2.82
1900,	89,736	254	2.84	312,277	18,999	11	.57	2.44
1901,	95,562	286	2.99	282,951	21,939	15	.68	2.56
1902,	110,015	442	4.02	223,915	25,596	14	.55	3.36
1903,	123,954	375	3.03	276,571	27,791	27	.97	2.65
1904,	129,523	512	3.95	194,532	26,224	24	.92	3.44
1905,	135,890	444	3.26	268,832	29,051	35	1.20	2.90
1906,	141,862	455	3.21	284,688	31,066	22	.71	2.76
1907,	150,371	766	5.08	195,247	32,750	40	1.22	4.40
1908,	152,536	550	3.61	208,977	29,304	22	.75	3.15
1909,	152,424	475	3.12	286,749	33,497	31	.93	2.72

TABLE 10—Comparison of production and fatal accidents of certain companies, 1908-1909

Names of Companies	1908				1909			
	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced
H. C. Frick Coke Co.,	10,049,351	30	334,978	2.98	16,678,031	48	347,459	2.88
Pittsburg Coal Co.,	11,029,035	29	380,311	2.63	12,281,425	28	438,622	2.28
Monongahela River Consolidated Coal and Coke Co.,	5,935,330	24	247,305	4.04	6,023,598	23	261,893	3.82
Berwind-White Coal Mining Co.,	3,774,951	14	269,639	3.70	3,998,040	*25	159,922	6.25
Keystone Coal and Coke Co.,	3,317,853	6	552,975	1.80	3,502,415	15	233,494	4.28
Pennsylvania Coal and Coke Co.,	2,789,910	10	278,991	3.58	3,335,726	15	222,382	4.50
Rochester and Pittsburg Coal and Iron Co.,	2,182,772	9	242,530	4.12	2,856,663	5	571,333	1.75
Jamison Coal and Coke Co.,	2,428,962	18	134,942	7.41	2,608,205	13	200,631	4.98
Westmoreland Coal Co.,	2,100,905	5	420,181	2.38	2,456,541	5	491,308	2.04
Vesta Coal Co.,	1,668,906	7	238,415	4.19	2,380,400	7	340,057	2.94
Pittsburg and Westmoreland Coal Co.,	2,106,971	11	191,542	5.22	2,140,126	6	356,688	2.80
W. J. Rainey,	649,240	1	649,240	1.54	1,903,683	3	634,561	1.58
Cambria Steel Co.,	1,404,873	6	234,146	4.27	1,769,858	†22	80,448	12.43
Somerset Coal Co.,‡	1,395,155	4	398,788	2.51	1,736,413	1	1,736,413	.58
Jefferson and Clearfield Coal and Iron Co.,	1,369,584	5	273,917	3.65	1,563,832	6	260,639	3.84
New York and Cleveland Gas Coal Co.,	1,616,018	1	1,616,018	.62	1,510,643	6	251,774	3.97
Buffalo and Susquehanna Coal and Coke Co.,	1,199,009	6	199,835	5.00	1,411,369	4	352,842	2.83
Northwestern Mining and Exchange Co.,	1,082,294	9	120,255	8.32	1,370,328	2	685,164	1.46
Ellsworth Collieries Co.,	1,293,804	27	47,919	20.87	1,369,038	7	195,577	5.11
Washington Coal and Coke Co.,	1,216,941	§	----------	----------	1,320,773	5	264,155	3.78
Clearfield Bituminous Coal Corporation,	1,310,336	4	327,584	3.05	1,195,588	1	1,195,588	.84

*Explosion of dust, 7 lives lost.
†Explosion of gas and dust, 17 lives lost.
‡Now Consolidation Coal Co.
§No fatal accidents.

TABLE 10—Continued

Names of Companies	1908				1909			
	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced
Penn Gas Coal Co.,	1,322,812	3	440,937	2.27	1,184,112	3	394,704	2.53
Pittsburg Gas Coal Co.,	928,226	4	232,057	4.31	1,132,627	2	566,314	1.77
Pittsburg-Buffalo Co.,	935,834	‖155	6,038	165.63	1,081,105	6	180,184	5.55
United Coal Co.,	947,794	5	189,559	5.28	1,059,231	9	117,692	8.50
Latrobe Connellsville Coal and Coke Co.,	903,358	4	225,840	4.43	1,034,105	7	147,729	6.77
Oliver and Snyder Steel Co.,	770,004	2	285,002	2.60	1,022,821	3	340,940	2.93
Youghiogheny and Ohio Coal Co.,	934,526	5	186,905	5.35	896,607	4	224,152	4.46
Penn Mary Coal Co.,	366,231	1	366,231	2.73	888,059	2	444,030	2.25
Ocean Coal Co.,	709,805	5	141,961	7.04	856,942.	1	856,942	1.17
Shawmut Mining Co.,	809,768	1	809,768	1.23	854,761	2	427,381	2.34
Cowanshannock Coal and Coke Co.,	678,612	3	226,204	4.42	818,599	4	204,650	4.89
National Mining Co.,	786,002	1	786,002	1.27	814,361	1	814,361	1.23
Jenner Quemahoning Coal Co.,	502,950	4	125,738	7.95	671,122	7	95,875	10.43
Cascade Coal and Coke Co.,	423,857	§	----------	----------	651,048	1	651,048	1.53
Loyalhanna Coal and Coke Co.,	581,053	3	193,684	5.16	564,120	2	282,060	3.55
Pittsburg and Baltimore Coal Co.,	524,122	4	131,031	7.63	556,103	5	111,221	8.99
Logan Coal Co.,	395,069	§	----------	----------	530,624	2	265,312	3.77
Bessemer Coke Co.,	442,850	4	110,713	9.03	527,902	3	175,967	5.68
Blaine Coal Co.,	394,222	2	197,111	5.07	480,140	§	----------	----------
Pittsburg and Eastern Coal Co.,	464,399	2	232,199	4.30	459,156	§	----------	----------
Great Lakes Coal Co.,	510,710	1	510,710	1.96	456,806	1	456,806	2.19
Russell Coal Co.,	416,750	1	416,750	2.40	454,922	1	454,922	2.20
Consolidated Connellsville Coke Co.,	266,358	§	----------	----------	449,992	1	449,992	2.22

§No fatal accidents.

‖Marianna disaster.

Barnes and Tucker,	380,541	§			526,420	2	213,210	4.69
Commercial Coal Mining Co.,	481,698	2	240,849	4.15	423,551	§		
Brier Hill Coke Co.,	510,485	4	127,621	7.84	406,377	1	406,377	2.46
Morris Run Coal Mining Co.,	170,269	§			401,952	1	401,952	2.49
Hostetter Connellsville Coke Co.,	123,727	§			387,283	4	96,821	10.33
Carrolltown Coal Co.,	556,309	1	556,309	1.80	379,618	1	379,618	2.63
Quemahoning Coal Co.,	413,864	1	413,864	2.42	378,600	§		
Taylor Coal and Coke Co.,	276,852	2	138,426	7.22	377,950	1	377,950	2.65
Maderia Hill Coal Mining Co.,	341,918	1	341,918	2.92	372,909	2	186,455	5.36
Sunshine Coal and Coke Co.,	64,444	§			370,921	1	370,921	2.70
Lincoln Coal and Coke Co.,	327,400	§			363,100	1	363,100	2.75
Charleroi Coal Works,	375,990	3	125,330	7.98	357,599	3	119,200	8.39
Crescent Coal Co.,	392,358	2	196,179	5.10	357,590	2	178,795	5.59
Orient Coke Co.,	340,834	3	113,611	8.80	356,874	1	356,874	2.88
Pittsburg and Erie Coal Co.,	326,987	2	163,493	6.12	350,634	1	350,634	2.85
Carnegie Coal Co.,	231,205	1	231,205	4.32	346,747	4	86,687	11.54
Dunbar Furnace Co.,	313,392	1	313,392	3.19	346,578	1	346,578	2.89
Empire Coal Mining Co.,	305,969	§			337,873	1	337,873	2.96
Greenwich Coal and Coke Co.,	218,959	1	218,959	4.56	329,184	1	329,184	3.04
Thompson Connellsville Coke Co.,	262,383	§			320,240	4	80,060	12.49
Allegheny Coal Co.,	227,216	§			317,143	1	317,143	3.15
Fayette Coal Co.,	182,079	§			313,065	3	104,355	9.58
Manor Gas Coal Co.,	368,208	1	368,208	2.72	311,182	§		
Bessemer Coal and Coke Co.,	201,216	§			309,702	2	154,851	6.46
Corona Coal and Coke Co.,	329,683	1	329,683	3.03	304,985	1	304,985	3.28
Sterling Coal Co.,	266,667	1	266,667	3.75	303,455	§		
Atlantic Crushed Coke Co.,	251,568	§			302,696	2	151,348	6.61
Clarence Coal Co.,	286,414	§			276,377	1	276,377	3.62
Portage Coal Mining Co.,	210,690	1	210,690	4.75	268,962	1	268,962	3.72
Brothers Valley Coal Co.,††	189,154	§			261,165	2	130,583	7.66
Kettle Creek Coal Mining Co.,	250,461	2	125,230	7.99	258,882	§		
NantYGlo Coal Mining Co.,	214,731	§			252,399	1	252,399	3.96
Henrietta Coal Mining Co.,	263,331	1	263,331	3.80	250,294	§		
Merchants Coal Co.,	499,709	3	166,570	6.00	247,068	**8	30,884	32.38
Sonman Shaft Coal Co.,	203,314	§			243,776	1	243,776	4.10
Brown and Cochran,	118,294	§			240,879	1	240,879	4.15
Cornell Coal Co.,	156,142	2	78,071	12.81	237,099	1	237,099	4.22
Moshannon Coal Mining Co.,	230,761	§			236,680	1	236,680	4.23
Meadow Lands Coal Co.,	242,331	3	80,777	12.38	229,663	2	114,832	8.71
Meyersdale Coal Co.,	216,891	1	216,891	4.61	228,015	§		
Jefferson Coal Co.,	189,200	1	189,200	5.29	226,668	§		
Naomi Coal Co.,	169,580	3	56,527	17.69	223,557	1	223,557	4.47
Republic Iron and Steel Co.,	323,741	1	323,741	3.09	222,194	3	74,065	13.50
Shoemaker Coal Mining Co.,	221,679	1	221,679	4.51	222,082	4	55,521	18.01
Stineman Coal Mining Co.,	215,846	§			214,271	1	214,271	4.67

§No fatal accidents.
**Explosion of gas and dust, 5 lives lost.
††Formerly W. K. Niver.

TABLE 10—Continued

Names of Companies	1908				1909			
	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced
South Fork Coal Mining Co.,	164,459	1	164,459	6.08	213,198	3	71,066	14.07
Donohoe Coke Co.,	183,549	1	183,549	5.45	209,667	1	209,667	4.77
Mifflin Coal Co.,	142,853	§			204,160	2	102,080	9.80
Carbon Coal and Coke Co.,	179,766	1	179,766	5.56	203,935	§		
Atlas Coke, Co.,	171,016	1	171,016	5.85	198,686	1	198,686	5.03
J. Blair Kennerly,	139,934	§			195,985	1	195,985	5.10
Knickerbocker Smokeless Coal Co.,	148,744	§			190,895	1	190,895	5.24
Fairmount Coal Co.,	207,247	§			183,088	1	183,088	5.46
Rock Hill Iron and Coal Co.,	201,326	2	100,663	9.93	183,086	§		
Ligonier Coal Co.,	165,662	1	165,662	6.04	179,190	2	89,595	11.16
Diamond Coal Co.,	189,485	§			176,911	1	176,911	5.65
Diamond Coal and Coke Co.,	6,960	1	6,960	143.68	174,712	§		
Cherry Tree Coal Co.,	150,739	1	150,739	6.63	171,315	1	171,315	5.84
Latrobe Coal Co.,	143,984	1	143,984	6.95	170,521	§		
Altoona Coal and Coke Co.,	179,378	2	89,689	11.14	162,625	§		
Fayette Coke Co.,	102,716	1	102,716	9.74	158,844	1	158,844	6.30
Century Coke Co.,	118,121	§			158,253	2	79,127	12.64
Forge Coal Mining Co.,	143,401	1	143,401	6.97	157,002	§		
Pennsylvania Salt Manufacturing Co.,	124,044	§			154,668	1	154,668	6.47
Irish Brothers,	136,187	§			150,512	1	150,512	6.64
Verner Coal and Coke Co.,	192,505	1	192,505	5.19	146,440	§		
Westerman-Filer and Co.,	113,700	1	113,700	8.79	145,156	1	145,156	6.89
Taylor and McCoy Coal and Coke Co.,	97,585	§			144,125	1	144,125	6.94

§No fatal accidents.

Struthers Coal and Coke Co.,	34,750	§			142,731	1	142,731	7.01
Crescent and Clearfield Coal and Coke Co.,	146,547	§			140,583	1	140,583	7.11
Reading Iron Co.,	81,758	§			139,129	1	139,129	7.19
Cochran Coal Co.,	117,191	§			138,393	2	69,197	14.45
Wharton Coal and Coke Co.,	94,739	§			138,245	2	69,123	14.47
Alton Coal Co.,	113,825	3	37,942	26.36	124,851	§		
Miller Coal Co.,	92,837	1	92,837	10.77	121,695	2	60,848	16.43
Lackawanna Coal and Coke Co.,	61,136	§			116,409	‡‡21	5,543	180.40
George Pierce and Sons,	131,118	§			116,409	1	116,409	8.59
Dilworth Coal Co.,	143,461	1	143,461	6.97	113,941	§		
Grove Coal Co.,	113,856	1	113,356	8.78	113,840	§		
Mercer Iron and Coal Co.,	16,112	§			113,389	1	113,389	8.82
Rembrandt Peale,	157,060	1	157,060	6.37	113,306	1	113,306	8.83
Oak Ridge Mining Co.,	136,879	1	136,879	7.31	112,758	1	112,758	8.87
Sunnyside Coal Co.,	74,935	2	37,467	26.69	111,830	§		
Clyde Coal Co.,	89,786	1	89,786	11.14	103,778	§		
Valley Camp Coal Co.,	85,681	§			98,477	1	98,477	10.15
Kiskiminetas Coal Co.,	70,972	§			97,728	1	97,728	10.23
Bulger Block Coal Co.,	148,581	1	148,581	6.73	93,827	§		
Greenwood Coal Co.,	89,067	§			92,865	1	92,865	10.77
Cambria Coal Mining Co.,	169,401	1	169,401	5.90	91,427	§		
Atlantic Coal Co.,	19,412	§			90,809	1	90,809	11.01
James Cochran Sons and Co.,	29,887	§			81,928	2	40,964	24.41
Joseph E. Thropp,	127,101	1	127,101	7.87	81,729	§		
Mt. Pleasant Connellsville Coke Co.,§§					81,626	1	81,626	12.25
Indiana Coal Co.,	92,172	1	92,172	10.85	80,600	1	80,600	12.41
Victoria Coal Mining Co.,	62,038	2	31,019	32.24	78,236	§		
Ollett Brothers,	51,590	1	51,590	19.38	73,148	§		
Glen White Coal and Lumber Co.,	56,007	1	56,007	17.85	71,931	§		
United States Sewer Pipe Co.,	71,123	1	71,123	14.06	69,865	1	69,865	14.31
Apollo Coal Co.,	68,334	§			69,300	1	69,300	14.43
Enterprise Coal Mining Co.,	53,244	§			68,387	1	68,387	14.62
Unity Coal Co.,	62,284	1	62,284	16.06	68,242	§		
Hormel Coal Co.,	72,260	1	72,260	13.84	67,068	§		
Steen Coal Co.,	47,118	§			66,131	1	66,131	15.12
Morrellville Coal Mining Co.,	39,332	1	39,332	25.42	65,891	1	65,891	15.18
J. H. Sanford Coal Co.,	74,167	§			64,597	1	64,597	15.48
Brady's Bend Coal Mining Co.,	47,597	§			59,645	2	29,823	33.53
Shenango Coal Co.,	60,209	1	60,209	16.61	58,813	1	58,813	17.00
Glenmore Coal and Coke Co.,†	45,982	1	45,982	21.75	58,691	§		
Woodland Coal and Coke Co.,	55,049	3	18,350	54.50	58,650	§		
A. Smith and Co.,	53,023	1	53,023	18.86	57,969	§		
McClane Coal Co.,	38,700	§			57,061	1	57,061	17.53
Mitchell Watson Coal Co.,	54,062	2	27,031	36.99	56,487	§		

§No fatal accidents.
‡‡Explosion of gas and dust, 21 lives lost.
§§Formerly Mt. Pleasant Coke Co.
†Now Tearing Run Coal Co.

TABLE 10—Continued

Names of Companies	1908				1909			
	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced	Production	Number of fatal accidents inside	Production per fatal accident inside	Fatal accidents per 1,000,000 tons produced
Bowersville Coal Co.,	44,267	§			55,296	1	55,296	18.08
Graceton Coke Co.,	84,619	§			53,931	2	26,966	37.08
Ninevah Coal and Coke Co.,	37,088	§			53,182	1	53,182	18.18
Somerset and Cambria Coal Co.,	40,520	1	40,520	24.68	52,829	§		
Keystone Collieries, Incorporated,	71,696	1	71,696	13.95	50,414	§		
Thomas J. Lee,	14,408	§			50,211	1	50,211	19.92
West Penn Coal Mining Co.,	33,474	§			49,996	1	49,996	20.00
Dents Run Mining Co.,	60,448	1	60,448	16.54	49,800	§		
Federal Coal Co.,	36,170	2	18,085	55.29	48,185	§		
Lake Shore Gas Coal Co.,	32,380	1	32,380	30.88	46,586	§		
Hogsett Coal and Coke Co.,	2,500	§			44,340	1	44,340	22.55
Hastings Coal and Coke Co.,	19,115	1	19,115	52.31	39,322	§		
Harbison Walker Refractories Co.,	25,422	1	25,422	39.33	33,235	§		
E. R. Wise,	31,100	§			32,928	1	32,928	30.37
Brownsfield Connellsville Coke Co.,	31,180	1	31,180	32.07	32,455	§		
Cortez Coal Co.,	20,548	§			32,225	1	32,225	31.03
Echard Coal and Coke Co.,	27,888	1	27,888	35.86	31,773	§		
Samuel Styer,	45,033	1	45,033	22.21	29,860	§		
W. J. Parshall,	21,100	§			29,770	2	14,885	67.18
Coronet Coal Co.,	39,260	§			28,100	1	28,100	35.59
Olanta Coal Mining Co.,	1,016	§			26,084	2	13,042	76.68
Maryland Coal Co.,	619	§			25,176	1	25,176	39.72

§No fatal accidents.

Provident Coke and Mining Co.,	19,872	§			17,345	1	17,345	57.65
W. A. Merrill and Co.,	16,336	1	16,336	61.21	15,106	§		
Willson Coal Co.,	31,578	1	31,578	31.67	14,040	1	14,040	71.22
James Byrne and Co.,	7,310	1	7,310	136.80	11,536	§		
Jamisonville Coal and Coke Co.,	8,870	2	4,435	225.48	10,000	§		
Max Frick's Estate,	32,472	§			5,131	1	5,131	194.89

§No fatal accidents.

Note: The attention of operators, managers, superintendents, mine foremen and inspectors is called to this Table. It was originally prepared for the purpose of comparing the fatalities among companies that produced over 100,000 tons, but noting the high percentage of accidents among the smaller companies, it was extended to cover all companies regardless of their production.

It will be a surprise to note the great number of fatalities among the smaller companies in what are called the "safe" mines in "safe" districts of the several so-called "safe" counties.

The Table also shows the number of lives lost inside the mines and the number of lives lost per 1,000,000 tons produced for all companies.

It will be seen that all the companies that produced from 500,000 to over 16,000,000 tons show a low rate of mortality per 1,000,000 tons produced, except those that had the misfortune to have explosions of gas and dust. These explosions are noted at the bottom of the Table. The high rate of fatality per 1,000,000 tons among other companies is deplorable, and it is to be hoped that the operator, manager, superintendent and foreman will in future give special care and attention to the matter of safety.

While no company escaped loss of life during both years, many of them escaped with accidents in one year only.

TABLE AA

Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of explosives used, etc., 1909

Districts	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons of 2,000 pounds	Total production of coke in tons	Tons of coal used in manufacture of coke	Number of coke ovens	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
												Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of so-called safety explosives used	
First,	5,225,041	109,690	36,939	5,769,941	204,283	398,271	498	205	8,406	26	71	266,429	1,995	163,623	586
Second,	4,736,052	235,599	64,373	8,080,340	2,456,311	*3,653,316	5,807	233	10,052	44	59	99,694	70,949	128,537	934
Third,	3,389,758	125,787	48,154	3,565,252	916	1,553	.....	199	6,314	7	47	406,554	33,559	.....	497
Fourth,	5,566,408	191,833	28,395	6,337,112	329,573	550,476	933	200	9,295	16	54	1,328,398	62,042	8,250	545
Fifth,	256,921	86,086	55,400	7,216,028	4,656,556	6,817,621	9,038	233	8,604	20	24	2,850	5,780	656,241	925
Sixth,	6,722,543	184,959	111,433	7,833,115	581,341	814,180	385	226	11,578	56	86	903,106	130,483	94,952	848
Seventh,	6,943,327	179,274	30,276	7,152,877	.....	.....	.....	171	10,108	17	51	534,185	10,105	2,950	698
Eighth,	3,787,548	66,888	69,332	3,924,068	200	300	106	183	7,137	6	24	459,601	29,915	3,595	563
Ninth,	820,120	175,853	118,462	7,946,296	4,615,872	6,831,861	8,678	258	8,539	25	39	74,428	6,287	396,268	1,061
Tenth,	4,625,622	152,297	32,477	5,397,972	374,047	587,576	1,331	181	10,086	40	95	722,724	59,498	27,190	834
Eleventh,	919,559	195,475	76,816	7,794,985	4,497,024	6,603,135	10,002	228	9,766	21	45	17,725	10,695	105,715	1,206
Twelfth,	6,445,987	287,902	33,565	7,768,463	588,078	1,001,009	2,357	201	10,558	23	80	1,220,302	74,326	22,900	493
Thirteenth,	6,105,687	108,188	19,400	6,316,405	49,153	83,130	233	198	7,988	24	58	560,028	8,084	137,825	590
Fourteenth,	5,441,979	138,164	94,467	5,676,494	1,095	1,884	60	222	7,106	16	23	561,180	15,628	162,205	392
Fifteenth,	6,788,075	151,049	48,515	7,272,987	182,878	285,348	482	197	11,346	20	39	862,355	60,588	300	706
Sixteenth,	1,210,215	179,326	51,399	7,082,047	3,835,918	5,641,107	8,345	263	10,044	33	53	6,700	275	817,665	1,019
Seventeenth,	5,788,011	148,579	69,421	6,006,011	.....	.....	.....	193	9,063	27	40	1,693,715	15,547	33,850	624
Eighteenth,	2,922,400	62,335	17,835	3,053,509	33,238	50,939	260	165	6,114	2	28	360,275	21,702	.....	736
Nineteenth,	7,683,211	152,169	51,850	7,920,205	27,120	32,975	85	228	8,544	25	107	243,097	21,100	177,725	620
Twentieth,	5,400,615	123,932	23,738	5,575,644	17,428	27,359	225	205	7,061	30	50	1,323,354	53,236	69,101	348
Twenty-first,	7,670,067	143,633	14,746	7,906,944	52,913	78,498	217	216	8,212	28	53	574,514	2,335	282,508	497
Totals, 1909,	98,449,146	3,199,018	1,096,993	136,205,695	22,503,944	33,460,538	49,042	210	185,921	506	1,126	12,221,214	694,129	3,291,400	14,722

*1,000 tons stored.

TABLE AA—Continued

	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Total production of coal in tons of 2,000 pounds	Total production of coke in tons	Tons of coal used in manufacture of coke	Number of coke ovens	Average number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
												Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of so-called safety explosives used	
Totals, 1908, ...	90,053,866	2,960,031	996,076	114,937,375	13,839,656	20,927,402	47,070	184	181,840	572	1,026	12,738,800	2,193,944	*	14,486
Totals, 1907, ...	110,632,428	3,168,919	1,263,428	149,559,047	23,516,309	34,494,272	47,202	238	183,121	806	1,207	16,874,225	3,425,494	*	15,323
Totals, 1906, ...	95,403,068	2,838,851	1,028,004	129,532,989	20,681,702	30,263,066	42,915	239	172,928	477	1,160	18,119,650	2,425,073	*	14,707
Totals, 1905, ...	88,489,864	2,616,719	944,210	119,361,514	18,519,310	27,310,721	39,754	216	164,941	479	1,076	15,194,150	2,159,680	*	13,710
Totals, 1904, ...	76,543,529	2,442,647	943,237	99,600,167	13,281,475	19,670,754	38,642	190	155,747	536	917	12,626,275	1,360,161	*	12,849
Totals, 1903, ...	81,127,701	2,351,622	807,223	103,713,982	14,286,995	21,213,358	37,705	216	151,745	402	1,046	11,145,725	1,136,305	*	12,899
Totals, 1902, ...	74,088,032	1,992,199	907,966	98,529,122	14,941,091	21,540,925	34,423	221	135,611	456	861	9,966,725	921,149	*	11,833
Totals, 1901, ...	59,974,631	1,435,631	1,008,457	80,914,236	13,125,156	18,495,517	31,845	216	117,501	301	656	7,850,400	693,801	*	10,108
Totals, 1900, ...	58,564,954	1,327,256	723,731	79,318,362	12,185,112	18,702,421	30,120	219	108,735	265	584	7,409,175	243,517	*	9,633

*No record kept.

TABLE AA—Part 2, 1909

Districts	Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
	Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
First,	9	370	113	18,665	19,035	--------	10	90	123	17,862	51	7,053	4,618	44	7
Second,	9	643	209	32,420	33,063	20	24	20	231	21,427	116	85,867	32,738	31	43
Third,	8	510	122	13,230	13,740	2	--------	20	98	6,242	122	25,623	14,625	21	42
Fourth,	4	630	161	21,690	22,320	16	--------	82	104	16,389	46	36,832	14,061	31	45
Fifth,	12	637	142	17,498	18,135	10	8	33	105	13,877	37	23,708	5,929	26	21
Sixth,	16	2,870	113	19,901	22,771	1	7	93	122	23,051	79	23,820	14,703	27	37
Seventh,	28	3,810	108	17,835	21,645	1	--------	72	125	17,383	103	17,056	11,339	47	24
Eighth,	5	300	75	8,710	9,010	7	--------	44	72	7,773	57	14,822	12,546	27	12
Ninth,	23	1,850	187	22,795	24,645	23	10	19	163	19,904	70	31,934	14,943	35	45
Tenth,	22	1,559	136	18,930	20,489	8	--------	63	150	17,574	59	24,484	14,416	42	23
Eleventh,	41	2,863	201	23,152	26,015	35	8	10	189	19,642	101	72,451	34,703	22	33
Twelfth,	15	835	224	37,433	38,268	9	--------	135	131	28,841	96	60,957	22,812	63	86
Thirteenth,	9	800	85	11,290	12,090	5	--------	54	84	12,341	72	18,642	10,937	27	4
Fourteenth,	10	915	97	14,940	15,855	2	--------	36	73	8,705	62	6,820	5,007	31	30
Fifteenth,	15	1,680	146	18,730	20,410	--------	--------	90	133	15,246	117	19,259	11,618	47	42
Sixteenth,	5	420	185	34,935	35,355	9	26	37	188	30,003	60	16,804	5,563	50	44
Seventeenth,	2	100	142	20,790	20,890	6	3	62	125	32,807	66	15,498	10,485	37	32
Eighteenth,	6	360	84	8,206	8,566	2	--------	12	67	5,646	70	18,168	5,067	11	14
Nineteenth,	21	523	107	17,120	17,643	6	12	27	113	18,041	52	33,564	12,345	28	24
Twentieth,	21	2,335	88	14,185	16,520	1	1	85	114	16,405	57	13,525	8,765	33	22
Twenty-first,	33	1,843	101	15,945	17,788	--------	--------	85	129	19,811	91	14,060	8,894	37	5
Totals,	314	25,853	2,826	408,400	434,253	163	109	1,169	2,649	368,970	1,584	580,947	276,114	717	635

TABLE A

Number of each class of employes in each district, 1909

Occupations of Employes	Districts										
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh
Inside											
Mine foremen,	28	53	76	63	52	63	45	84	40	81	63
Assistant foremen,	7	12	8	14	13	36	5	7	15	24	8
Fire bosses,	92	61	6	17	55	25	84	----------	69	7	60
Miners,	1,411	4,885	2,512	3,775	3,633	6,529	1,620	4,695	3,342	5,250	4,053
Machine runners,	297	84	213	205	19	147	506	78	74	186	44
Machine loaders,	3,675	419	1,793	2,452	112	1,413	5,105	805	301	1,944	308
Machine scrapers,	279	60	212	198	17	147	481	78	68	145	47
Drivers and runners,	585	592	423	469	467	581	534	369	449	638	515
Doorboys and helpers,	104	87	63	103	58	116	111	100	95	103	74
Company men,	371	416	205	390	622	811	323	141	630	453	671
All other employes,	401	357	56	185	311	244	302	130	260	58	289
Totals,	7,250	7,026	5,567	7,871	5,359	10,112	9,116	6,487	5,343	8,889	6,132
Outside											
Superintendents,	26	46	56	27	46	32	27	38	39	48	48
Foremen,	33	41	7	20	55	15	14	18	55	15	71
Blacksmiths and carpenters,	114	205	87	161	150	133	150	89	148	125	143
Engineers and firemen,	128	237	137	176	137	183	141	87	200	172	210
Coke employes,	185	1,675	----------	235	2,078	293	----------	----------	1,997	357	2,419
Bookkeepers and clerks,	51	50	63	49	55	58	49	47	70	65	54
All other employes,	619	772	397	756	724	752	611	371	687	415	689
Totals,	1,156	3,026	747	1,424	3,245	1,466	992	650	3,196	1,197	3,634
Grand totals inside and outside,	8,406	10,052	6,314	9,295	8,604	11,578	10,108	7,137	8,539	10,086	9,766

TABLE A—Continued

Occupations of Employes	Districts										Grand totals inside and outside
	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	
Inside											
Mine foremen,	72	33	65	98	44	35	93	30	58	37	1,213
Assistant mine foremen,	14	8	10	14	15	7	12	16	27	11	283
Fire bosses,	18	84	20	7	75	68	----------	70	15	84	917
Miners,	2,881	1,819	2,066	6,835	3,174	1,815	4,361	2,784	4,121	2,108	73,669
Machine runners,	452	222	287	194	199	434	32	260	94	190	4,217
Machine loaders,	3,575	3,362	2,532	1,913	1,061	4,017	385	2,749	779	3,276	41,976
Machine scrapers,	432	216	281	194	187	419	32	248	91	190	4,022
Drivers and runners,	345	492	348	429	449	541	364	505	385	566	10,046
Doorboys and helpers,	106	89	86	172	57	125	65	91	59	81	1,945
Company men,	569	428	311	455	959	440	154	488	545	707	10,089
All other employes,	151	243	168	37	365	188	58	164	37	43	4,047
Totals,	8,615	6,996	6,174	10,348	6,585	8,089	5,556	7,405	6,211	7,293	152,424
Outside											
Superintendents,	35	17	51	32	40	25	35	18	36	29	751
Foremen,	27	23	14	12	71	18	10	20	19	21	579
Blacksmiths and carpenters,	148	110	105	136	176	118	66	106	92	113	2,675
Engineers and firemen,	258	115	134	154	226	153	81	147	124	139	3,339
Coke employes,	578	83	1	139	1,983	----------	84	26	57	40	12,230
Bookkeepers and clerks,	50	34	49	40	59	42	51	38	49	39	1,062
All other employes,	847	610	578	485	904	618	231	784	473	538	12,861
Totals,	1,943	992	932	998	3,459	974	558	1,139	850	919	33,497
Grand totals inside and outside,	10,558	7,988	7,106	11,346	10,044	9,063	6,114	8,544	7,061	8,212	185,921

TABLE B

Causes of fatal accidents in and about the mines and number attributable to each cause; number of wives made widows and children made orphans by reason of such accidents, 1909

Causes of Fatal Accidents	Districts																					Totals	Percentages
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first		
Inside																							
Falls of coal, slate and roof,	18	33	5	11	11	21	9	4	16	13	14	15	15	9	17	15	21	2	13	11	18	291	61.26
Mine cars,	5	7	----	1	3	7	3	1	5	2	5	3	3	5	1	10	4	----	9	3	5	82	17.26
Explosions of gas and dust,	----	----	----	----	1	20	----	----	----	21	----	1	----	----	----	----	----	----	----	5	----	48	10.11
Explosions of powder and dynamite,	----	----	1	----	----	1	----	----	----	----	----	1	----	----	2	----	----	----	----	----	----	5	1.05
Blasts, premature and otherwise,	----	----	----	----	----	----	----	----	1	----	----	----	----	----	----	----	----	----	----	----	1	2	.42
Falling into shafts, slopes, etc.,	----	1	1	----	----	----	----	----	----	----	1	----	----	----	----	2	----	----	----	3	----	8	1.69
Crushed at batteries,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Kicked by mules, etc.,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Suffocation by gas or otherwise,	----	----	----	----	----	----	----	----	----	3	----	----	----	----	----	----	----	----	2	----	----	5	1.05
Machinery,	----	----	----	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	1	.21
Electricity,	3	----	----	1	1	2	3	1	----	----	----	1	2	1	----	----	1	----	----	3	3	22	4.63
Miscellaneous,	----	----	----	1	1	2	1	----	----	----	----	1	----	----	----	2	----	----	----	3	----	11	2.32
Totals,	26	41	7	14	17	54	16	6	22	39	20	22	20	15	20	29	26	2	24	28	27	475	100.00
Outside																							
Cars,	----	1	----	1	2	1	1	----	2	----	1	1	2	1	----	----	1	----	1	2	----	17	54.84
Machinery,	----	2	----	----	1	----	----	----	1	----	----	----	----	----	----	2	----	----	----	----	1	7	22.58
Boiler explosions,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Miscellaneous,	----	----	----	1	----	1	----	----	----	1	----	----	2	----	----	2	----	----	----	----	----	7	22.58
Totals,	----	3	----	2	3	2	1	----	3	1	1	1	4	1	----	4	1	----	1	2	1	31	100.00
Grand totals inside and outside,	26	44	7	16	20	56	17	6	25	40	21	23	24	16	20	33	27	2	25	30	28	506	--------

Widows, 270. Orphans, 613.

The above table shows that 61.26 per cent. of the lives lost inside the mines were lost through falls; 17.26 by cars; 10.11 by explosions of gas and dust, and 4.63 by electricity. These four causes were responsible for 93.26 per cent. of the fatal accidents inside the mines.

The accidents by falls and cars should be reduced at least one-half, while the fatal accidents from electricity should be entirely eliminated. The accidents outside should be reduced at least one-half, and there is no valid reason why 24 persons should be killed on the surface by cars and machinery. With the proper effort on the part of the officials and employes the accidents can be reduced, as suggested.

TABLE C

Causes of non-fatal accidents in and about the mines and number attributable to each cause, 1909

Causes of Non-Fatal Accidents	Districts																						
	First	Second	Third	Fourth	Fifth	Sixth	Seventh	Eighth	Ninth	Tenth	Eleventh	Twelfth	Thirteenth	Fourteenth	Fifteenth	Sixteenth	Seventeenth	Eighteenth	Nineteenth	Twentieth	Twenty-first	Totals	Percentages
Inside																							
Falls of coal, slate and roof,	44	38	19	23	9	42	31	17	18	42	19	36	37	9	17	23	22	14	70	28	32	590	54.94
Mine cars,	15	14	9	15	6	31	15	5	16	33	12	30	13	11	16	21	12	8	19	12	12	325	30.26
Explosions of gas and dust,	1	----	----	----	3	2	1	----	----	12	----	2	4	----	----	----	----	----	----	1	----	26	2.42
Explosions of powder and dynamite,	1	----	----	2	----	1	----	1	1	1	1	3	----	1	----	----	----	1	8	2	----	23	2.14
Blasts, premature and otherwise,	----	2	2	4	----	3	----	----	1	2	1	3	----	1	1	4	1	1	1	----	7	34	3.17
Falling into shafts, slopes, etc.,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Crushed at batteries,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Kicked by mules, etc.,	----	2	1	----	----	1	2	----	----	1	1	1	----	----	----	1	1	1	----	1	----	13	1.21
Machinery,	1	1	2	----	----	----	1	1	----	1	2	----	----	----	----	2	2	----	----	----	1	14	1.30
Electricity,	----	----	----	----	----	1	----	----	----	----	----	2	----	1	----	----	----	----	----	----	----	4	.37
Miscellaneous,	7	----	2	3	3	1	----	----	2	1	8	1	1	----	3	2	1	1	4	4	1	45	4.19
Totals,	69	57	35	47	21	82	50	24	38	93	44	78	55	23	37	53	39	26	102	48	53	1,074	100.00
Outside																							
Cars,	1	1	5	6	1	2	1	----	1	2	1	1	1	----	2	----	----	----	5	2	----	32	61.54
Machinery,	----	----	----	----	1	1	----	----	----	----	----	----	----	----	----	----	----	2	----	----	----	4	7.69
Boiler explosions,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Electricity,	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Miscellaneous,	1	1	7	1	1	1	----	----	----	----	----	1	2	----	----	----	1	----	----	----	----	16	30.77
Totals,	2	2	12	7	3	4	1	----	1	2	1	2	3	----	2	----	1	2	5	2	----	52	100.00
Grand totals inside and outside,	71	59	47	54	24	86	51	24	39	95	45	80	58	23	39	53	40	28	107	50	53	1,126	--------

The above table shows that 85.20 per cent. of the non-fatal accidents inside the mines were due to falls and cars, and 69.23 per cent. of the accidents outside to machinery.

The accidents by falls, cars and machinery can be reduced at least one-half if the officials and the employes will exercise proper care.

TABLE D

Number of gaseous and non-gaseous mines in operation, number of foremen, assistants and fire-bosses, production and percentage of production from gaseous and non-gaseous mines by districts, 1909

Districts	Gaseous Mines				Non-Gaseous Mines			Production from gaseous mines	Production from non-gaseous mines	Percentage of production from gaseous mines	Percentage of production from non-gaseous mines
	Number of gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen	Number of fire-bosses	Number of non-gaseous mines in operation	Number of mine foremen	Number of assistant mine foremen				
First,	28	26	6	92	3	2	1	5,620,925	149,016	97.42	2.58
Second,	27	27	10	61	27	26	2	7,219,127	1,470,213	83.08	16.92
Third,	3	3	--------	6	75	73	8	219,945	3,345,307	6.17	93.83
Fourth,	5	--------	--------	--------	59	--------	--------	1,887,235	4,449,877	29.78	70.22
Fifth,	20	20	7	55	40	32	6	4,559,838	2,656,190	63.19	36.81
Sixth,	11	13	5	25	55	50	24	2,533,287	5,299,828	32.34	67.66
Seventh,	28	27	2	84	19	18	3	5,078,696	2,074,181	71.00	29.00
Eighth,	--------	--------	--------	--------	105	84	7	--------	3,924,068	--------	100.00
Ninth,	28	28	13	69	17	12	2	6,918,926	1,027,370	87.07	12.93
Tenth,	4	4	1	7	80	77	23	380,376	5,017,596	7.05	92.95
Eleventh,	27	27	7	60	38	36	1	5,773,327	2,021,658	74.06	25.94
Twelfth,	11	11	1	18	65	61	13	2,741,372	5,027,091	35.29	64.71
Thirteenth,	24	24	7	84	8	9	1	5,351,310	965,095	84.72	15.28
Fourteenth,	16	16	1	20	50	49	9	1,684,356	3,992,138	29.67	70.33
Fifteenth,	3	3	1	7	102	95	13	322,325	6,950,662	4.43	95.57
Sixteenth,	36	34	13	75	10	10	2	755,151	6,326,896	10.66	89.34
Seventeenth,	20	20	4	68	16	15	3	4,095,391	1,910,620	68.19	31.81
Eighteenth,	--------	--------	--------	--------	118	93	12	--------	3,053,509	--------	100.00
Nineteenth,	19	19	11	70	11	11	5	6,610,018	1,310,187	83.46	16.54
Twentieth,	4	5	3	15	64	53	24	887,797	4,687,847	15.92	84.08
Twenty-first,	31	31	11	84	7	6	--------	7,732,688	174,256	97.80	2.20
Totals and percentages,	345	338	103	900	969	812	159	70,372,090	65,833,605	51.67	48.33

TABLE E

Quantity of coal produced by each company that produced 500,000 or more tons, and the number of persons employed, 1909

Names of Companies	Inspection Districts	Production of Coal in Tons	Employes
H. C. Frick Coke Company,	Second, Fifth, Ninth, Eleventh, Sixteenth,	16,678,031	18,940
Pittsburg Coal Company,	First, Seventh, Ninth, Thirteenth, Seventeenth, Twenty-first,	12,281,425	16,364
Monongahela River Consolidated Coal and Coke Company,	First, Thirteenth, Sixteenth, Seventeenth, Twenty-first,	6,023,538	8,225
Berwind-White Coal Mining Company,	Sixth, Twelfth, Eighteenth, Twentieth,	3,998,040	5,691
Keystone Coal and Coke Company,	Second, Nineteenth,	3,502,415	3,981
Pennsylvania Coal and Coke Company,	Sixth, Eighth, Tenth, Twelfth, Fifteenth,	3,335,726	6,203
Rochester and Pittsburg Coal and Iron Company,	Third, Fourth, Twelfth,	2,856,663	3,670
Jamison Coal and Coke Company,	Second,	2,608,205	2,456
Westmoreland Coal Company,	Eleventh, Nineteenth,	2,456,541	2,315
Vesta Coal Company,	Sixteenth, Twenty-first,	2,380,400	2,013
Pittsburg-Westmoreland Coal Company,	First, Nineteenth,	2,140,126	2,801
W. J. Rainey,	Fifth, Ninth, Eleventh,	1,903,683	1,937
Cambria Steel Company,	Sixth, Ninth,	1,769,858	2,374
Consolidation Coal Company,	Twentieth,	1,736,413	2,141
Jefferson and Clearfield Coal and Iron Company,	Fourth, Twelfth,	1,563,832	2,072
New York and Cleveland Gas Coal Company,	Fourteenth, Nineteenth,	1,510,643	1,755
Buffalo and Susquehanna Coal Mining Company,	Fourth, Twelfth,	1,411,369	1,704
Northwestern Mining and Exchange Company,	Fourth,	1,370,328	1,919
Ellsworth Collieries Company,	First,	1,369,038	1,872
Washington Coal and Coke Company,	Eleventh,	1,320,773	1,315
Clearfield Bituminous Coal Corporation,	Eighth, Twelfth, Fifteenth,	1,195,588	2,040
Penn Gas Coal Company,	Thirteenth, Nineteenth,	1,184,112	1,161
Pittsburg Gas Coal Company,	Fourteenth,	1,132,627	1,270
Pittsburg-Buffalo Company,	First, Seventh, Seventeenth, Nineteenth,	1,081,105	1,488
United Coal Company,	First, Thirteenth, Seventeenth,	1,059,231	1,133
Latrobe-Connellsville Coal and Coke Company,	Second,	1,034,105	1,324
Oliver and Snyder Steel Company,	Fifth, Ninth,	1,022,821	1,238
Youghiogheny and Ohio Coal Company,	First, Eleventh, Thirteenth, Seventeenth,	896,607	1,186
Penn Mary Coal Company,	Fifteenth,	888,059	813
Ocean Coal Company,	Nineteenth,	856,942	718
Shawmut Mining Company,	Fourth,	854,761	1,304
Cowanshannock Coal and Coke Company,	Twelfth,	818,599	950
National Mining Company,	Seventh,	814,631	970
Pittsburg Terminal Railroad and Coal Company,	Seventeenth,	716,930	2,015
Jenner-Quemahoning Coal Company,	Twentieth,	671,122	561
Cascade Coal and Coke Company,	Fourth, Twelfth,	651,048	924

Peale, Peacock and Kerr, Incorporated,	Eighth, Fifteenth,	641,589	872
Loyalhanna Coal and Coke Company,	Second, Sixth,	564,120	622
Pittsburg and Baltimore Coal Company,	Nineteenth,	556,103	612
Logan Coal Company,	Sixth, Fifteenth,	530,624	716
Bessemer Coke Company,	Second, Fifth, Eleventh, Sixteenth,	527,902	1,035
Totals,		92,915,673	112,700

The 41 companies named in this table, out of 618 companies in the region, produced 92,915,673 tons, or 68.22 per cent. of the total output, 136,205,695 tons.

TABLE F

Classification of employes killed or fatally injured in and about the mines, 1900-1909

Employes Killed or Fatally Injured	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	Totals
Inside											
Mine foremen,	3	7	3	1	1	1	3	1		4	24
Assistant mine foremen,		1	1			1		1	3		7
Fire-bosses,		1	7	3	2	5	4	8	4	1	35
Miners,	192	203	314	236	208	261	247	362	219	260	2,502
Machine runners,	4	3	13	10	16	13	7	19	11	11	107
Machine loaders,	11	11	35	48	143	77	105	172	144	69	815
Machine scrapers,	1	2	10	5	12	7	13	8	8	6	72
Drivers and runners,	19	29	23	39	26	38	37	79	33	37	360
Doorboys and helpers,	3	1	2	5	6	3	3	22	2	5	52
Company men,	1	10	28	17	15	14	18	49	87	51	290
All other employes,	20	18	6	11	83	24	18	45	*39	31	295
Totals,	254	286	442	375	512	444	455	766	550	475	4,559
Outside											
Superintendents,			1							1	2
Foremen,		1	1	2	1	2	1		1	1	10
Blacksmiths and carpenters,			1			1		1	2	1	6
Engineers and firemen,			3	2	2		1	3	1		12
Coke employes,		2	1	4		4		7	1	3	22
All other employes,	11	12	7	19	21	28	20	29	17	25	189
Totals,	11	15	14	27	24	35	22	40	22	31	241
Grand totals inside and outside,	265	301	456	402	536	479	477	806	572	506	4,800

*In the Rachel and Agnes disaster, 12 victims, occupation unknown.

TABLE G

Number and causes of fatal accidents in and about the mines, 1877-1909

Causes of Fatal Accidents	1877-1886	Percentages	1887-1896	Percentages	1897-1906	Percentages	1907-1909	Percentages	Total number of fatal accidents	Percentages for 33 years
Inside										
By falls of coal, slate and roof,	435	72.14	859	63.53	2,060	61.47	860	48.02	4,214	59.38
By mine cars,	80	13.27	185	13.68	475	14.17	260	14.52	1,000	14.09
By explosions of gas and dust,	54	8.95	177	13.09	443	13.22	485	27.08	1,159	16.33
By explosions of powder and dynamite,	1	.17	30	2.22	34	1.02	8	.45	73	1.03
By explosions of blasts,	4	.66	16	1.18	51	1.52	20	1.12	91	1.28
By falling into shafts and slopes,	1	.16	17	1.26	54	1.61	38	2.12	110	1.55
By mules,	5	.83	4	.30	8	.24	1	.05	18	.25
Suffocation by gas,	----------	----------	9	.67	19	.57	7	.39	35	.49
By machinery,	8	1.33	5	.37	20	.60	12	.67	45	.64
By electricity,	----------	----------	2	.15	57	1.70	64	3.57	123	1.73
Miscellaneous causes,	15	2.49	48	3.55	130	3.88	36	2.01	229	3.23
Totals,	603	100.00	1,352	100.00	3,351	100.00	1,791	100.00	7,097	100.00
Outside										
By cars,	12	42.86	16	48.49	74	42.77	51	54.84	153	46.79
By machinery,	2	7.14	3	9.09	24	13.87	11	11.83	40	12.23
By suffocation,	----------	----------	----------	----------	1	.58	3	3.23	4	1.23
By boiler explosions,	8	28.57	----------	----------	7	4.05	1	1.07	16	4.89
Miscellaneous causes,	6	21.43	14	42.42	67	38.73	27	29.03	114	34.86
Totals,	28	100.00	33	100.00	173	100.00	93	100.00	327	100.00
Grand totals inside and outside,	631	----------	1,385	----------	3,524	----------	1,884	----------	7,424	----------

TABLE H

Nationality by birth of employes killed or fatally injured in and about the mines, 1899-1909

Nationality	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	Total Number of Lives Lost	Percentages
American,	62	71	72	59	83	100	104	63	131	107	92	944	18.66
English,	14	16	20	25	12	22	14	10	8	25	15	181	3.58
Welsh,	7	2	5	5	3	3	3	4	3	3	1	39	.77
Scotch,	10	8	5	5	7	4	7	11	7	7	14	85	1.68
Irish,	10	11	11	7	7	5	11	6	12	6	12	98	1.94
German,	16	10	13	14	16	13	13	19	45	10	10	179	3.54
Slavonian,	46	56	59	94	79	69	90	95	118	96	97	899	17.77
Italian,	26	29	32	50	43	73	57	71	121	73	80	655	12.94
Polish,	20	19	28	90	31	44	63	70	57	64	80	566	11.19
Hungarian,	16	13	13	36	46	71	34	39	177	43	25	513	10.14
Austrian,	13	12	24	38	32	39	45	46	69	32	37	387	7.65
Swedish,	5	7	4	4	12	5		5	3	2	6	53	1.05
Russian,	4	3	3	17	9	11	14	22	27	41	16	167	3.30
Belgian,	4	2		2	2	2	4	4			2	22	.44
Bohemian,	3	3	3	1	4	5	5		1	3	1	29	.57
French,	2	3	5	1	5	2	2	5	3	3	1	32	.63
Finnish,			3	2	1	4	2	1	4	1		18	.36
Canadian,			1				1			1		3	.06
Lithuanian,				6	4	8	6	5	9	11	10	59	1.17
Greek,					4		1		3	1	1	10	.20
Tyrolean,					2							2	.04
Danish,						1	1					2	.04
Croatian,						1		1	1	2	4	9	.18
Japanese,							1					1	.02
Syrian,							1					1	.02
Montenegrian,									2			2	.04
Horwat,									4	2		6	.12
Romanian,										1		1	.02
Granish,										1	2	3	.06
						*54			†1	‡37		92	1.82
Totals,	258	265	301	456	402	536	479	477	806	572	506	5,058	100.00

*In the Harwick disaster 54 victims, nationality unknown.
†In the Darr disaster 1 victim, nationality unknown.
‡In the Rachel and Agnes disaster 37 victims, nationality unknown.

TABLE I

Production of coal, production per employe inside, quantity of explosives used, production for each pound of explosive used, 1892-1909

Years	Production (in tons of 2,000 pounds)	Average number of tons produced per employe inside	Explosives			Average number of tons of coal produced for each pound of explosive used
			Number of pounds of black powder used	Number of pounds of dynamite used	Number of pounds of so-called safety explosives used	
1892,	46,581,575	707	2,696,450	----------	----------	17.27
1893,	43,421,898	622	3,004,425	----------	----------	14.45
1894,	39,800,210	542	2,918,875	----------	----------	13.64
1895,	51,818,112	725	3,731,700	----------	----------	13.89
1896,	50,284,692	703	3,639,650	----------	----------	13.81
1897,	54,625,272	744	4,318,425	*73,874	----------	12.65
1898,	64,247,665	872	5,526,250	141,336	----------	11.34
1899,	73,066,945	975	6,660,700	222,076	----------	10.62
1900,	79,318,362	884	7,409,925	243,517	----------	10.36
1901,	80,914,236	847	7,851,500	693,801	----------	9.47
1902,	98,529,122	896	9,966,725	921,149	----------	9.90
1903,	103,713,982	837	11,145,725	1,136,305	----------	8.44
1904,	99,600,167	768	12,626,275	1,360,161	----------	7.12
1905,	119,361,514	878	15,194,150	2,159,680	----------	6.88
1906,	129,532,989	913	18,119,650	2,425,073	----------	6.39
1907,	149,559,047	995	16,874,225	3,425,494	----------	7.37
1908,	114,937,375	754	12,738,800	2,193,944	----------	7.70
1909,	136,205,695	894	12,221,214	694,129	3,291,400	8.46

*Dynamite was not reported until 1897.

TABLE J

Number of employes in and about the mines, by counties, 1881-1909

Counties	1881–1890	1891–1900	1901–1909
Allegheny,	107,799	141,869	178,434
Armstrong,	3,864	11,427	34,906
Beaver,	3,183	4,461	3,455
Bedford,	4,519	9,107	12,779
Blair,	6,079	5,702	5,525
Bradford,	4,892	1,025	230
Butler,	3,581	4,296	12,109
Cambria,	23,149	85,547	176,275
Cameron,	508	----------	634
Centre,	6,052	10,187	15,179
Clarion,	9,202	10,154	13,064
Clearfield,	64,090	89,026	100,194
Clinton,	332	2,044	3,780
Elk,	10,106	13,964	20,955
Fayette,	66,956	134,802	248,582
Greene,	72	----------	1,119
Huntingdon,	5,275	6,216	9,386
Indiana,	1,749	8,879	63,084
Jefferson,	20,002	62,362	71,439
Lawrence,	2,687	4,336	3,706
Lycoming,	1,474	1,460	1,273
McKean,	907	605	162
Mercer,	10,967	10,203	12,132
Somerset,	6,720	17,771	76,866
Sullivan,	----------	337	----------
Tioga,	24,390	20,960	18,946
Venango,	364	----------	----------
Washington,	35,125	61,941	118,634
Westmoreland,	84,646	145,550	246,507
Totals,	508,690	864,231	1,449,355

TABLE K

Production of coal in tons, by counties, 1881-1909

Counties	1881-1890	1891-1900	1901-1909
Allegheny,	46,948,701	78,252,192	130,185,172
Armstrong,	1,991,959	6,484,895	21,464,400
Beaver,	1,512,710	2,045,689	1,869,921
Bedford,	1,993,477	4,233,854	5,927,125
Blair,	2,591,383	2,546,582	2,935,136
Bradford,	2,466,159	428,601	76,602
Butler,	1,591,731	1,874,447	5,943,310
Cambria,	12,809,320	53,104,046	109,311,887
Cameron,	85,912	----------	152,693
Centre,	3,329,370	5,890,613	8,725,351
Clarion,	4,465,125	4,981,252	6,227,076
Clearfield,	39,383,430	52,875,513	57,920,188
Clinton,	289,074	1,487,238	2,776,300
Elk,	4,897,789	8,098,458	11,729,877
Fayette,	41,557,215	98,035,467	198,926,505
Greene,	15,060	----------	862,354
Huntingdon,	2,367,783	2,992,724	4,307,327
Indiana,	1,058,249	5,386,004	41,085,761
Jefferson,	13,054,914	48,428,933	54,273,567
Lawrence,	887,602	1,802,249	1,671,847
Lycoming,	731,355	706,753	567,361
McKean,	437,694	301,002	49,756
Mercer,	4,890,039	4,602,435	6,863,779
Somerset,	3,037,168	12,717,727	54,250,482
Sullivan,	----------	90,538	----------
Tioga,	11,219,042	8,567,289	7,819,726
Venango,	85,266	----------	----------
Washington,	12,587,496	37,826,551	96,299,788
Westmoreland,	49,377,280	101,183,033	200,130,836
	----------	*26,278	----------
Totals,	265,662,303	544,970,363	1,032,354,127

*Production of small mines not under provision of law.

TABLE L

Production of coke in tons, by counties, 1880-1909

Counties	1880–1889	1890–1899	1900–1909
Allegheny,	257,943	361,312	3,731
Armstrong,	113,311	31,883	28,706
Beaver,	17,740	236	----------
Bedford,	304,382	325,816	827,470
Blair,	822,508	463,236	557,797
Bradford,	----------	263,474	----------
Butler,	65,357	4,720	----------
Cambria,	974,410	1,924,033	6,544,693
Cameron,	6,228	----------	66,272
Centre,	153,518	229,703	11,921
Clarion,	114,164	----------	----------
Clearfield,	557,817	1,547,059	1,488,938
Elk,	41,330	62,516	234,268
Fayette,	23,126,542	43,792,415	98,295,379
Huntingdon,	499,583	127,282	87,314
Indiana,	127,336	322,750	968,491
Jefferson,	977,062	3,906,577	6,041,435
Lawrence,	20,461	----------	----------
Somerset,	207,766	128,508	264,977
Sullivan,	----------	----------	----------
Tioga,	420,915	9,636	----------
Washington,	148,700	10,900	835,502
Westmoreland,	12,934,742	27,114,090	50,643,996
Totals,	41,891,815	80,626,146	166,900,940

TABLE M

Fatal accidents per 1,000 employes in and about the mines, and production in tons per fatal accident, 1877-1909

Years	Employes	Fatal accidents	Fatal accidents per 1,000 employes	Production	Production per fatal accident
1877,	16,627	13	.78	*1,305,932	100,456
1878,	25,787	48	1.86	12,500,741	260,432
1879,	27,286	55	2.01	14,341,369	242,570
1880,	33,391	48	1.43	16,564,440	345,092
1881,	35,530	57	1.60	15,916,123	279,230
1882,	42,393	94	2.22	20,694,110	220,150
1883,	35,091	54	1.54	18,729,817	346,848
1884,	39,904	105	2.63	20,553,090	195,744
1885,	44,145	83	1.88	23,413,692	282,092
1886,	52,364	74	1.41	27,107,173	366,313
1887,	57,868	84	2.14	29,966,855	356,748
1888,	61,565	90	1.46	33,772,286	375,248
1889,	62,084	105	1.69	34,625,054	329,762
1890,	67,383	146	2.17	40,884,103	273,179
1891,	74,135	237	3.20	41,805,642	176,395
1892,	78,805	134	1.70	46,581,575	347,623
1893,	81,872	131	1.60	43,421,898	334,015
1894,	86,118	123	1.50	39,800,210	320,969
1895,	84,976	156	1.84	51,818,112	332,167
1896,	83,801	180	2.15	50,284,692	279,359
1897,	86,553	150	1.73	54,625,272	364,168
1898,	87,803	200	2.28	64,247,665	321,238
1899,	91,505	258	2.82	73,066,945	283,205
1900,	108,735	265	2.44	79,318,362	299,315
1901,	117,501	301	2.56	80,914,236	268,818
1902,	135,611	456	3.36	98,529,122	216,072
1903,	151,745	402	2.65	103,713,982	257,995
1904,	155,747	536	3.44	99,600,167	185,821
1905,	164,941	479	2.90	119,361,514	249,189
1906,	172,928	477	2.76	129,532,989	271,557
1907,	183,121	806	4.40	149,559,047	185,557
1908,	181,840	572	3.15	114,937,375	200,939
1909,	185,921	506	2.72	136,205,695	269,181

*Three inspectors took office October 1. Data given for last three months of year.

TABLE N

Mines using mining machines, number of machines and motive power used to operate them, and tons of coal produced by machines, in each district, 1909

Districts	Number of mines in which machines are used	Number of machines operated by electricity	Number of machines operated by compressed air	Total number of mining machines	Production of coal in tons	Tons produced by pick mining	Tons produced by compressed air machines	Tons produced by electric machines	Percentage by pick mining	Percentage by compressed air machines	Percentage by electric machines
First,	30	234	70	304	5,769,941	1,274,838	71,867	4,423,396	22.09	1.25	76.66
Second,	10	7	134	141	8,689,340	7,649,889	968,351	71,100	88.04	11.14	.82
Third,	45	62	213	275	3,565,252	1,716,807	1,179,450	668,995	48.15	33.08	18.77
Fourth,	30	28	367	395	6,337,112	2,943,777	3,126,559	266,776	46.45	49.34	4.21
Fifth,	6	12	8	20	7,216,028	6,903,106	160,043	152,879	95.66	2.22	2.12
Sixth,	19	50	321	371	7,833,115	4,379,208	2,899,660	554,247	55.91	37.02	7.07
Seventh,	43	398	125	523	7,152,877	1,504,219	1,218,798	4,429,860	21.03	17.04	61.93
Eighth,	14	18	89	107	3,924,068	2,931,776	797,711	194,581	74.71	20.33	4.96
Ninth,	12	20	59	79	7,946,296	6,451,838	803,360	691,098	81.19	10.11	8.70
Tenth,	24	94	119	213	5,397,972	3,486,492	757,848	1,153,632	64.59	14.04	21.37
Eleventh,	7	10	33	43	7,794,985	6,815,682	622,112	357,191	87.44	7.98	4.58
Twelfth,	47	2	620	622	7,768,463	1,742,079	6,011,384	15,000	22.43	77.38	.19
Thirteenth,	31	206	4	210	6,316,405	1,640,054	175,466	4,500,885	25.96	2.78	71.26
Fourteenth,	37	79	268	347	5,676,494	2,005,988	2,380,908	1,289,598	35.34	41.94	22.72
Fifteenth,	37	56	226	282	7,272,987	5,139,788	1,680,962	452,237	70.67	23.11	6.22
Sixteenth,	24	45	150	195	7,082,047	5,054,513	1,430,727	596,807	71.37	20.20	8.43
Seventeenth,	34	215	264	479	6,006,011	1,622,971	1,326,164	3,056,876	27.02	22.08	50.90
Eighteenth,	9	2	74	76	3,053,509	2,639,960	410,608	2,941	86.46	13.45	.09

Nineteenth,	18	90	140	230	7,920,205	4,061,847	1,722,279	2,136,079	51.28	21.75	26.97
Twentieth,	16	126	150	276	5,575,644	3,750,731	943,013	881,900	67.27	16.91	15.82
Twenty-first,	28	175	9	184	7,906,944	2,604,669	145,394	5,156,881	32.94	1.84	65.22
Totals,	521	1,929	3,443	5,372	136,205,695	76,320,132	28,832,604	31,052,959	56.03	21.17	22.80

Note: The above table shows that the percentage of coal mined by pick was 56.03, by compressed air 21.17 and by electricity 22.80. In 1901 the percentages were, pick 63.80, compressed air 21.19, electricity 15.01. These figures show a decrease by pick mining of 7.77 per cent., compressed air machines .02 per cent., and an increase by electric machines of 7.79 per cent. Production by pick mining predominates in the Second, Third, Fifth, Sixth, Eighth, Ninth, Tenth, Eleventh, Fifteenth, Sixteenth, Eighteenth, Nineteenth and Twentieth districts; production by electric machines predominates in the First, Seventh, Thirteenth, Seventeenth and Twenty-first districts, and production by compressed air machines predominates in the Fourth, Twelfth and Fourteenth districts. It will be noted that electricity is the chief motive power for producing coal in a few of the most dangerous districts and pick mining the chief power in several of the other dangerous districts, while compressed air is used to some extent in all the districts.

TABLE O

Production of coal by pick mining, compressed air and electric power, 1901-1909

Years	Pick	Percentages	Compressed air machines	Percentages	Electric machines	Percentages	Total production
1901,	51,621,167	63.80	17,145,799	21.19	12,147,270	15.01	80,914,236
1902,	62,203,097	63.13	17,945,432	18.21	18,380,593	18.66	98,529,122
1903,	65,162,906	62.83	20,106,840	19.39	18,444,236	17.78	103,713,982
1904,	61,096,511	61.34	20,904,575	20.99	17,599,081	17.67	99,600,167
1905,	68,900,085	57.73	26,805,191	22.46	23,656,238	19.81	119,361,514
1906,	75,117,053	57.99	24,988,171	19.29	29,427,765	22.72	129,532,989
1907,	89,443,116	59.81	29,273,217	19.57	30,842,714	20.62	149,559,047
1908,	63,549,572	55.29	23,926,398	20.82	27,461,405	23.89	114,937,375
1909,	76,320,132	56.03	28,832,604	21.17	31,052,959	22.80	136,205,695

BITUMINOUS DISTRICTS

1—23—1909

FIRST DISTRICT

WASHINGTON, ALLEGHENY AND WESTMORELAND COUNTIES

Monongahela, Pa., February 5, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I herewith transmit my annual report of the First Bituminous District for the year ending December 31, 1909.

I was transferred to this district July 1, 1909, from the Eleventh District.

The report contains the usual tables and statistics, remarks concerning the condition and improvements of the mines, the report of the annual examination of candidates for mine foremen's and fire bosses' certificates, and also a report of legal proceedings.

Respectfully submitted,

ALEXANDER McCANCH, Inspector.

SUMMARY OF STATISTICS

Number of mines,	34
Number of mines in operation,	31
Number of tons of coal shipped to market,	5,225,041
Number of tons used at mines for steam and heat,	109,690
Number of tons sold to local trade and used by employes,	36,939
Number of tons used in the manufacture of coke,	398,271
Number of tons of coal produced,	5,769,941
Number of tons of coke produced,	204,283
Number of coke ovens,	498
Number of coke ovens in operation,	498
Number of tons of coal produced by pick mining,	1,274,838
Number of tons produced by compressed air machines,	71,807
Number of tons produced by electrical machines,	4,423,296
Number of persons employed inside of mines,	7,250
Number of persons employed outside, including coke workers,	1,156
Number of persons employed at manufacture of coke,	185
Number of fatal accidents inside of mines,	26
Number of fatal accidents outside,	—
Number of non-fatal accidents inside of mines,	69
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	221,920
Number of persons employed per fatal accident inside,	279
Number of persons employed per fatal accident outside,	—
Number of persons employed per non-fatal accident inside,	105
Number of persons employed per non-fatal accident outside,	578
Number of wives made widows,	17
Number of children made orphans,	39
Number of steam locomotives used inside of mines,	—
Number of steam locomotives used outside,	—
Number of compressed air locomotives used inside,	10
Number of compressed air locomotives used outside,	—
Number of electric motors used inside,	82
Number of electric motors used outside,	8
Number of fans in use,	31
Number of furnaces in use,	2
Number of gaseous mines in operation,	28
Number of non-gaseous mines in operation,	3
Number of new mines opened,	—
Number of old mines abandoned,	—

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburg-Westmoreland Coal Company,	1,521,406
Ellsworth Collieries Company,	1,369,038
Monongahela River Consolidated Coal and Coke Company,	957,499
Pittsburg Coal Company,	525,723
United Coal Company,	366,728
Charleroi Coal Works,	357,599
Youghiogheny and Ohio Coal Company,	180,908
Diamond Coal and Coke Company,	174,712
Henderson Coal Company,	143,250
Pittsburg-Buffalo Company,	126,804
Peoples Coal Company,	40,508
Fred E. Heslep,	5,766
Total,	5,769,941

Production by Counties

Washington,	4,267,443
Allegheny,	912,978
Westmoreland,	589,520
Total,	5,769,941

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburg-Westmoreland Coal Co.,	6	--------	6	21	--------	21	253,568	72,448	1,863	205	2,068	311	--------	89	--------
Ellsworth Collieries Co.,	7	--------	7	12	1	13	195,577	114,086	1,432	440	1,872	204	--------	119	440
Monongahela River Consolidated Coal and Coke Co.,	5	--------	5	10	--------	10	191,500	95,750	1,632	207	1,839	326	--------	163	--------
Pittsburg Coal Co.,	1	--------	1	9	1	10	525,723	58,414	605	69	674	605	--------	67	69
Charleroi Coal Works,	3	--------	3	3	--------	3	119,200	119,200	407	38	445	136	--------	136	--------
Youghiogheny and Ohio Coal Co.,	1	--------	1	2	--------	2	180,908	90,454	160	23	183	160	--------	80	--------
Diamond Coal and Coke Co.,	--------	--------	--------	4	--------	4	--------	43,678	223	29	252	--------	--------	56	--------
Henderson Coal Co.,	--------	--------	--------	7	--------	7	--------	20,464	162	23	185	--------	--------	23	--------
Pittsburg-Buffalo Co.,	3	--------	3	1	--------	1	42,268	126,804	283	74	357	94	--------	283	--------
Miscellaneous Companies,	--------	--------	--------	--------	--------	--------	--------	--------	483	48	531	--------	--------	--------	--------
Totals and averages for district,	26	--------	26	69	2	71	221,920	83,622	7,250	1,156	8,406	279	--------	105	578

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	----	----	1	----	----	1	----	----	2	7.69
Falls of slate,	3	----	1	4	2	----	1	1	----	2	1	----	15	57.69
Falls of roof,	----	----	----	----	----	----	----	----	----	----	1	----	1	3.85
Mine cars,	1	----	----	----	----	1	----	----	----	1	2	----	5	19.23
Electricity,	----	----	----	----	1	----	----	1	----	1	----	----	3	11.54
Totals,	4	----	1	4	3	1	2	2	----	5	4	----	26	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	----	----	1	----	1	----	----	----	2	2.90
Falls of slate,	2	1	4	2	1	4	3	3	1	1	4	3	29	42.03
Falls of roof,	----	----	2	1	----	1	2	3	3	----	----	1	13	18.84
Mine cars,	----	1	1	3	----	2	1	1	3	----	1	2	15	21.74
Explosions of gas and dust,	---	---	----	----	----	----	----	----	1	----	----	----	1	1.45
Explosions of powder and dynamite,	----	----	----	----	----	----	----	----	----	----	----	1	1	1.45
Machinery,	----	----	----	----	1	----	----	----	----	----	----	----	1	1.45
Miscellaneous,	1	----	1	----	2	----	----	----	----	2	1	----	7	10.14
Totals,	3	2	8	6	4	7	7	7	9	3	6	7	69	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	----	----	1	1	50.00
Miscellaneous,	----	----	----	----	----	----	----	----	----	1	----	----	1	50.00
Totals,	----	----	----	----	----	----	----	----	----	1	----	1	2	100.00
Grand totals inside and outside,	3	2	8	6	4	7	7	7	9	4	6	8	71	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	----	----	----	----	----	----	----	----	----	----	1	----	1
Miners,	4	----	----	----	3	----	1	----	----	2	1	----	11
Machine loaders,	----	----	1	4	----	----	1	1	----	2	1	----	10
Company men,	----	----	----	----	----	1	----	1	----	1	1	----	4
Totals,	4	----	1	4	3	1	2	2	----	5	4	----	26
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Fire bosses,	----	----	----	----	----	----	----	----	1	----	----	----	1
Miners,	3	1	2	2	1	3	4	4	1	2	2	3	28
Machine runners,	----	----	----	----	1	----	1	----	----	----	----	----	2
Machine loaders,	----	----	5	1	2	3	2	2	4	1	3	3	26
Drivers and runners,	----	----	----	2	----	----	----	----	1	----	----	1	4
Doorboys and helpers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Company men,	----	1	1	----	----	----	----	1	2	----	1	----	7
Totals,	3	2	8	6	4	7	7	7	9	3	6	7	69
Outside													
Drivers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	----	----	----	----	----	----	----	----	1	----	1	2
Grand totals inside and outside,	3	2	8	6	4	7	7	7	9	4	6	8	71

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
English,	----	----	----	----	----	----	----	----	----	----	1	----	1
Scotch,	----	----	----	----	----	----	----	1	----	----	----	----	1
Polish,	----	----	1	----	1	----	1	----	----	----	----	----	3
Italian,	1	----	----	----	----	----	1	----	----	1	----	----	3
Slavonian,	2	----	----	3	1	----	----	1	----	2	1	----	10
Lithuanian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Austrian,	----	----	----	----	----	1	----	----	----	----	----	----	1
Russian,	1	----	----	1	1	----	----	----	----	2	1	----	6
Totals,	4	----	1	4	3	1	2	2	----	5	4	----	26

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	2	2	----	2	1	----	1	2	----	1	11
English,	----	----	----	----	----	----	----	----	1	----	----	2	3
Irish,	----	----	1	1	----	----	----	----	----	----	----	----	2
Polish,	----	----	----	1	1	1	1	2	----	----	----	----	6
Italian,	----	----	1	1	----	1	1	1	2	----	1	1	9
Slavonian,	----	1	----	1	3	1	1	3	4	----	4	1	19
Lithuanian,	----	1	1	----	----	----	2	1	----	----	----	2	7
Russian,	1	----	2	----	----	2	1	----	1	1	1	1	10
French,	----	----	1	----	----	----	----	----	----	1	----	----	2
Belgian,	2	----	----	----	----	----	----	----	----	----	----	----	2
Totals,	3	2	8	6	4	7	7	7	9	4	6	8	71

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pittsburg-Westmoreland Coal Co.																
Acme Nos. 1 and 2,	Shaft and Slope,	Gaseous,	Fan,	20	6.4	6	86	1.5	Lepley,	Steam,		8	126,500	63,700	132,825	149
Dunkirk,	Slope,	Gaseous,	Fan,	16	4.6	6.6	82	2	Pollock,	Steam,		5	75,740	24,090	79,527	196
Hazel Kirk Nos. 1 and 3	Shaft and Slope.	Gaseous,	Fan,	11	6	4	233	1.8	Capell,	Steam,		6	154,970	103,360	162,718	362
Hazel Kirk No. 2,	Shaft,	Gaseous,	Fan,	20	6	6	76	1.6	Pollock,	Steam,		5	80,190	65,900	84,200	236
Shoenberger,	Drift,	Gaseous,	Fan,	11	7	5.5	190	2.5	Capell,	Steam,		10	132,600	115,600	135,252	421
Ellsworth Collieries Co.																
Ellsworth No. 1,	Shaft,	Gaseous,	Fan,	13	5	6.5	232	3.3	Capell,	Steam,		7	206,400	128,500	216,720	453
Ellsworth No. 2,	Shaft,	Gaseous,	Fan,	13	5	6.5	227	3.2	Capell,	Electricity,		6	193,200	113,720	202,864	389
Ellsworth No. 3,	Shaft,	Gaseous,	Fan,	13	5.7	7	173	3.8	Capell,	Steam,		6	165,360	115,600	173,628	398
Ellsworth No. 4,*	Shaft,	Gaseous,	Fan,													
Monongahela River Consolidated Coal and Coke Co.																
Black Diamond,	Drift,	Gaseous,	Fans,	20 8	6 2.3	6 3.3	83 300	2 .8	Pollock, Stine,	Steam, Electricity,		6	134,800	44,960	141,540	305
Coal Bluff,	Drift,	Gaseous,	Fan,	9	3.5	2.3	230	1.2	Capell,	Steam,		3	80,000	22,040	81,600	143
Catsburg,	Drift,	Gaseous,	Fan,	16	7	7	88	2	Capell,	Steam,		2	81,000	18,900	82,620	139
Cincinnati,	Drift,	Gaseous,	Fan,	12	6.5	3	157	3	Capell,	Electricity,		7	170,200	81,170	173,604	203
Gallatin,	Drift,	Gaseous,	Fan,	13.5	5.6	4.6	138	1.7	Capell,	Steam,		4	45,526	22,200	46,437	150

*Idle.

Mongah,	Drift,	Gaseous,	Fan,	20	6	6	96	2.5	Pollock,	Steam,		3	76,500	19,800	78,030	180
Sunnyside,†	Drift,	Gaseous,	Fan,									3	108,000	33,000	110,160	153
Pittsburg Coal Co.																
Banner,	Drift,	Gaseous,	Fan,	20	7	5.5	76	1.6	Brazil,	Steam,		3	94,500	58,240	99,250	151
Equitable,	Drift,	Gaseous,	Fan,	16	4.6	5	96	1.3	Pollock,	Steam,		5	119,000	73,200	121,380	201
Manown,	Drift,	Gaseous,	Fan,	20	7	5.5	94	2.7	Brazil,	Steam,		3	72,500	37,000	73,950	178
United Coal Co.																
Ella,	Drift,	Gaseous,	Fan,	20	6	6	208	4	Lepley,	Steam,		6	218,590	77,140	227,333	300
Charleroi Coal Works																
Charleroi Nos. 1 and 2,	Drifts,	Gaseous,	Fans,	20 20	6 3	6 6	76 87	1.1 2	Guibal,	Steam,		7	153,880	85,320	160,035	325
Youghiogheny and Ohio Coal Co.																
Budd,	Drift,	Gaseous,	Fan,	20	6	6	76	1.5	Pollock,	Steam,		3	48,360	11,100	50,778	120
Diamond Coal and Coke Co.																
Huston Run,	Drift,	Gaseous,	Fan,	16	7.2	4	64	1	Lepley,	Steam,		2	36,900	25,000	38,700	154
Henderson Coal Co.																
Irons Nos. 1 and 2,	Drifts,	Non-gas.,	Fans,	7 7 8	1.6 1.6 1.6	1.6 1.6 1.6			Stine,	Electricity,		3	102,000	77,840	106,800	92
Pittsburg-Buffalo Co.																
Rachel and Blanch,	Shafts,	Gaseous,	Fan,	18	6	9	140	4.3	Lepley,	Steam,		19	243,700	114,140	253,448	276
Peoples Coal Co.																
Clinton,	Drift,	Gaseous,	Fan,	12	4	3.8	112	.6	Pollock,	Steam,		2	33,600	13,000	35,280	63
Fred E. Heslep																
Heslep,	Drift,	Non-gas.,	Furnace,								16	1				

†Ventilated by fan at Gallatin mine.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pittsburg-Westmoreland Coal Co.,	Acme No. 1,	Shaft,	Gaseous,	8	Electricity,	Pittsburg,	74	75	73	143,962
	Acme No. 2,	Slope,	Gaseous,	10			74	75	73	704
	Dunkirk,	Slope,	Gaseous,	10			70	76	64	124,463
	Hazle Kirk No. 1,	Shaft,	Gaseous,	15			66	70	62	201,732
	Hazle Kirk No. 2,	Shaft,	Gaseous,	11			68	72	64	192,363
	Hazle Kirk No. 3,	Slope,	Gaseous,	5			56	61	51	109,462
	Shoenberger,	Drift,	Gaseous,	14			70	72	68	428,482
Totals,				73						1,201,168
Ellsworth Collieries Co.,	Ellsworth No. 1,	Shaft,	Gaseous,	15	Electricity,	Pittsburg,	75	78	72	1,072,886
	Ellsworth No. 2,	Shaft,	Gaseous,	15			75	78	72	
	Ellsworth No. 3,	Shaft,	Gaseous,	14			75	78	72	
Totals,				44						1,072,886
Monongahela River Consolidated Coal and Coke Co.	Black Diamond,	Drift,	Gaseous,	9	Electricity,	Pittsburg,	65	67	63	193,698
	Coal Bluff,	Drift,	Gaseous,	8			58	60	56	25,050
	Catsburg,	Drift,	Gaseous,	9			67	72	63	90,355
	Cincinnati,	Drift,	Gaseous,	8			66	72	60	110,367
	Gallatin,	Drift,	Gaseous,	9			67	72	62	104,186

	Mongah,	Drift,	Gaseous,	9			67	72	62	128,601
	Sunnyside,	Drift,	Gaseous,	9			67	72	62	100,408
Totals,				61						752,665
Pittsburg Coal Co.,	Banner,	Drift,	Gaseous,	6	Electricity,	Pittsburg,	66	72	61	111,334
	Equitable,	Drift,	Gaseous,	6			68	74	63	226,991
	Manown,	Drift,	Gaseous,	6			66	72	60	100,894
Totals,				18						439,219
United Coal Co.,	Ella,	Drift,	Gaseous,	8	Electricity,	Pittsburg,	67	72	62	298,065
Charleroi Coal Works,	Charleroi Nos. 1 and 2,	Drifts,	Gaseous,	9	Electricity,	Pittsburg,	72	78	66	293,425
Youghiogheny and Ohio Coal Co.,	Budd,	Drift,	Gaseous,	5	Electricity,	Pittsburg,	67	72	62	125,442
Diamond Coal and Coke Co.,	Huston Run,	Drift,	Gaseous,	5	Electricity,	Pittsburg,	66	72	60	157,240
Henderson Coal Co.,	Irons Nos. 1 and 2,	Drifts,	Non-gas.,	5	Electricity,	Pittsburg,	73	76	71	60,940
Pittsburg-Buffalo Co.,	Rachel and Blanch,	Shafts,	Gaseous,	70	Compressed Air,	Pittsburg,	71	75	68	71,807
Peoples Coal Co.,	Clinton,	Drift,	Gaseous,	5	Electricity,	Pittsburg,	66	72	61	16,580
Fred E. Heslep,	Heslep,	Drift,	Non-gas.,	1	Electricity,	Pittsburg,	69	72	66	5,666
Grand totals,				304						4,495,103

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburg-Westmoreland Coal Co.						
Acme No. 1,	Washington,	H. K. Knopf,	Pittsburg,	Donald Darroch,	Bentleyville,	Pennsylvania
Acme No. 2,				Thomas H. Tudor,	Bentleyville,	
Dunkirk,				James Holsworth,	Ivanhoe,	
Hazel Kirk Nos. 1 and 3,				Richard Maize,	Ivanhoe,	
Hazel Kirk No. 2,				Silas Hall,	Van Voorhis,	
Shoenberger,				W. S. Lewis,	Monongahela,	
Ellsworth Collieries Co.						
Ellsworth Nos. 1 and 2,	Washington,	Benjamin Holliday,	Ellsworth,	J. P. Miller,	Ellsworth,	Pennsylvania
Ellsworth Nos. 3 and 4,*				W. E. Lahm,	Cokeburg,	
Monongahela River Consolidated Coal and Coke Co.						
Black Diamond,	Washington,	S. A. Scott,	Pittsburg,	Matthew Herron,	Monongahela,	Pennsylvania
Coal Bluff,	Washington,			C. W. Hall,	Courtney,	Pennsylvania
Catsburg,	Washington,			Matthew Herron,	Monongahela,	Pennsylvania
Cincinnati,	Washington,			C. W. Hall,	Courtney,	Pennsylvania
Gallatin,	Allegheny,			F. B. Dunbar,	Gallatin,	Pittsburg and Lake Erie
Mongah,	Allegheny,			William N. Rigg,	Monongahela,	Pittsburg and Lake Erie
Sunnyside,	Allegheny,			F. B. Dunbar,	Gallatin,	Pittsburg and Lake Erie
Pittsburg Coal Co.						
Banner,	Washington,	Geo. W. Schluederberg	Pittsburg,	John King,	Coal Bluff,	Pennsylvania
Equitable,	Westmoreland,			George W. Warring,	Webster,	Pittsburg and Lake Erie
Manown,	Allegheny,			George W. Warring,	Webster,	Pittsburg and Lake Erie
United Coal Co.						
Ella,	Allegheny,	J. D. O'Neil,	Pittsburg,	D. W. Phillips,	Sunnyside,	Pittsburg and Lake Erie
Charleroi Coal Works						
Charleroi Nos. 1 and 2,	Washington,	J. K. Johnson,	Charleroi,	J. K. Johnson,	Charleroi,	Pennsylvania
Youghiogheny and Ohio Coal Co.						
Budd,	Westmoreland,	A. W. Osborne,	Cleveland,	James Bayley,	Webster,	Pittsburg and Lake Erie

*Idle.

Diamond Coal and Coke Co. Huston Run,	Washington,	A. H. Stolzenback,	Pittsburg,	F. R. Barnum,	Courtney,	Pennsylvania
Henderson Coal Co. Irons Nos. 1 and 2,	Westmoreland,	W. M. Henderson,	Pittsburg,	Arthur McCune,	Charleroi,	Pittsburg and Lake Erie
Pittsburg-Buffalo Co. Rachel and Blanch,	Washington,	David G. Jones,	Canonsburg,	J. H. Crawford,	Marianna,	Pennsylvania
Peoples Coal Co. Clinton,	Allegheny,	G. W. Thomas,	Pittsburg,	G. W. Cramer,	Monongahela,	Pittsburg and Lake Erie
Fred E. Heslep Heslep,	Washington,	Fred E. Heslep,	Donora,	Fred E. Heslep,	Donora,	Pennsylvania
Star Coal Co. Star,*	Washington					
Cane Coal Co. Sterling,*	Allegheny					

*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg-Westmoreland Coal Co.																
Acme No. 1,	Washington,	165,094	3,488	1,976	----------	170,558	----------	------	252	259	1	6	----------	----------	----------	22
Acme No. 2,	Washington,	----------	754	36	----------	790	----------	------	4	236	----	----	----------	----------	----------	22
Dunkirk,	Washington,	155,921	2,672	2,242	----------	160,835	----------	------	231	253	----	1	----------	----------	----------	21
Hazle Kirk No. 1,	Washington,	239,722	4,879	4,182	----------	248,783	----------	------	257	352	1	3	----------	----------	----------	28
Hazle Kirk No. 2,	Washington,	235,354	3,684	2,871	----------	241,909	----------	------	235	285	3	3	----------	----------	----------	26
Hazle Kirk No. 3,	Washington,	139,229	1,826	2,218	----------	143,273	----------	------	202	218	1	1	----------	----------	----------	18
Shoenberger,	Washington,	546,784	5,296	3,178	----------	555,258	----------	------	268	465	----	7	----------	----------	----------	36
Totals,		1,482,104	22,599	16,703	----------	1,521,406	----------	------	------	2,068	6	21	----------	----------	----------	173
Ellsworth Collieries Co.																
Ellsworth No. 1,	Washington,	386,088	3,627	3,329	150,720	543,764	96,030	205	226	673	5	6	----------	----------	32,000	31
Ellsworth No. 2,	Washington,	252,187	15,745	3,397	92,518	363,847	----------	------	173	557	2	2	----------	----------	20,800	7
Ellsworth No. 3,	Washington,	304,051	864	1,854	154,658	461,427	108,129	278	232	642	----	5	----------	----------	27,200	42
Totals,		942,326	20,236	8,580	397,896	1,369,038	204,159	483	------	1,872	7	13	----------	----------	80,000	80
Monongahela River Consolidated Coal and Coke Co.																
Black Diamond,	Washington,	253,194	7,172	----------	----------	260,366	----------	------	210	366	----	4	52,000	----------	----------	28
Coal Bluff,	Washington,	28,906	6,572	84	----------	35,562	----------	------	84	230	----	----	----------	----------	4,950	14
Catsburg,	Washington,	111,383	3,557	202	----------	115,142	----------	------	160	251	1	----	23,000	----------	----------	25

Cincinnati,	Washington,	166,116	817	203	.....	167,136	.....	.....	144	236	1	3	7,775	.....	4,208	16
Gallatin,	Allegheny,	107,013	3,495	221	.....	110,729	.....	.....	176	253	....	1	22,000	300	.....	8
Mongah,	Allegheny,	145,659	4,323	32	.....	150,014	.....	.....	216	267	2	2	12,000	.....	17,000	19
Sunnyside,	Allegheny,	117,862	688	.....	.....	118,550	.....	.....	232	236	1	....	23,300	800	.....	14
Totals,	.....	930,133	26,624	742	.....	957,499	.....	.....	.....	1,839	5	10	140,075	1,100	26,158	124
Pittsburg Coal Co.																
Banner,	Washington,	131,047	2,405	460	.....	133,912	.....	.....	191	177	....	5	10,000	45	.....	21
Equitable,	Westmoreland,	260,895	3,213	1,254	.....	265,362	.....	.....	230	276	1	1	25,900	150	100	25
Manown,	Allegheny,	121,652	4,475	322	.....	126,449	.....	.....	159	221	....	4	11,080	200	150	26
Totals,	.....	513,594	10,093	2,036	.....	525,723	.....	.....	.....	674	1	10	46,980	395	250	72
United Coal Co.																
Ella,	Allegheny,	358,515	7,584	629	.....	366,728	.....	.....	232	376	....	....	.....	.....	19,900	28
Charleroi Coal Works																
Charleroi Nos. 1 and 2,	Washington,	353,942	3,618	39	.....	357,599	.....	.....	242	445	3	3	23,285	.....	19,315	27
Youghiogheny and Ohio Coal Co.																
Budd,	Westmoreland,	177,632	2,872	404	.....	180,908	.....	.....	253	183	1	2	17,125	250	.....	14
Diamond Coal and Coke Co.																
Huston Run,	Washington,	172,400	1,752	560	.....	174,712	.....	.....	272	252	....	4	32,500	250	.....	12
Henderson Coal Co.																
Irons Nos. 1 and 2,	Westmoreland,	143,250	.....	.....	.....	143,250	.....	.....	172	185	....	7	.....	.....	.....	8
Pittsburg-Buffalo Co.																
Rachel and Blanch,	Washington,	111,537	13,412	1,480	375	126,804	124	15	244	357	3	1	.....	.....	18,000	37
Peoples Coal Co.																
Clinton,	Allegheny,	39,608	850	50	.....	40,508	.....	.....	141	139	....	....	5,064	.....	.....	9
Fred E. Heslep																
Heslep,	Washington,	.....	50	5,716	.....	5,766	.....	.....	295	16	....	....	1,400	.....	.....	2
Grand totals,	.....	5,225,041	109,690	36,939	398,271	5,769,941	204,283	498	.....	8,406	26	71	266,429	1,995	163,623	586

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pittsburg-Westmoreland Coal Co.,	Washington,			24	3,600	3,600			13	21	2,800	14	2,040	920	10	
Ellsworth Collieries Co.,	Washington,			28	6,750	6,750			40	32	7,696	2	1,000	350	6	3
Monongahela River Consolidated Coal and Coke Co.,	Washington, Allegheny,	2	80	33	3,555	3,635			15	37	3,604	11	1,365	840	11	
Pittsburg Coal Co.,	Washington, Westmoreland, Allegheny,	6	280	5	500	780			1	10	818	5	530	530	3	
United Coal Co.,	Allegheny,			5	650	650			4	7	1,249	2	268	268	3	
Charleroi Coal Works,	Washington,			6	560	560			7	6	760	11	915	915	4	1
Youghiogheny and Ohio Coal Co.,	Westmoreland,			3	425	425			2	3	500	2	200	65	2	
Diamond Coal and Coke Co.,	Washington,			3	375	375			1	3	235				2	
Henderson Coal Co.,	Westmoreland,								3							
Pittsburg-Buffalo Co.,	Washington,			4	2,000	2,000		10	3			2	650	650	2	3
Peoples Coal Co.,	Allegheny,			2	250	250			1	3	190	1	65	60	1	
Fred E. Heslep,	Washington,	1	10			10				1	10	1	20	20		
Totals,		9	370	113	18,665	19,035		10	90	123	17,862	51	7,053	4,618	44	7

TABLE 3.—Number of Each Class of Em ployes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburg - Westmoreland Coal Co.,	Washington,	7	----	22	389	95	944	77	158	30	8	133	1,833	7	8	21	17	----	7	145	205	2,038
Ellsworth Collieries Co.,	Washington,	3	3	18	285	58	657	58	100	19	16	215	1,432	3	12	29	33	180	16	167	440	1,872
Monongahela River Consolidated Coal and Coke Co.,	Washington, Allegheny,	7	1	21	301	63	861	63	143	22	150	------	1,632	7	7	31	37	----	8	117	207	1,839
Pittsburg Coal Co.,	Washington, Westmoreland, Allegheny,	3	----	11	89	22	324	22	54	17	51	12	605	2	1	10	13	----	3	40	69	674
United Coal Co.,	Allegheny,	1	----	7	65	11	192	11	33	6	18	------	344	1	----	4	6	----	1	20	32	376
Charleroi Coal Works,	Washington,	1	----	4	89	10	236	10	27	2	4	24	407	1	1	4	5	----	2	25	38	445
Youghiogheny and Ohio Coal Co.,	Westmoreland,	1	----	3	56	5	60	5	15	2	13	------	160	----	1	3	2	----	1	16	23	183
Diamond Coal and Coke Co.,	Washington,	1	----	1	42	8	133	8	14	1	15	------	223	1	----	4	4	----	1	19	29	252
Henderson Coal Co.,	Westmoreland,	1	1	----	38	5	91	5	13	------	------	8	162	1	----	2	----	----	2	18	23	185
Pittsburg-Buffalo Co.,	Washington,	1	2	4	------	16	130	16	19	5	90	------	283	1	3	5	7	5	8	45	74	357
Peoples Coal Co.,	Allegheny,	1	----	1	57	3	40	3	7	------	6	8	126	1	----	1	3	----	1	7	13	139
Fred E. Heslep,	Washington,	1	----	----	------	1	7	1	2	------	------	1	13	1	----	----	1	----	1	------	3	16
Totals,		28	7	92	1,411	297	3,675	279	585	104	371	401	7,250	26	33	114	128	185	51	619	1,156	8,406

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburg-Westmoreland Coal Co.,	Washington,	16	15	15	19	22	22	20	20	21	15	12	10	207
Ellsworth Collieries Co.,	Washington,	19	13	12	10	12	18	24	23	23	16	16	24	210
Monongahela River Consolidated Coal and Coke Co.,	Washington, Allegheny,	14	17	18	11	7	6	16	8	15	22	24	15	173
Pittsburg Coal Co.,	Washington, Westmoreland, Allegheny,	3	3	3	12	17	21	24	23	23	21	21	22	193
United Coal Co.,	Allegheny,	------	10	22	21	24	26	26	26	25	24	23	5	232
Charleroi Coal Works,	Washington,	12	11	27	20	5	23	26	26	25	21	24	22	242
Youghiogheny and Ohio Coal Co.,	Westmoreland,	23	22	27	23	23	25	20	17	16	20	21	16	253
Diamond Coal and Coke Co.,	Washington,	24	23	24	16	23	23	20	25	23	24	23	24	272
Henderson Coal Co.,	Westmoreland,	19	13	13	12	6	9	13	14	14	17	20	22	172
Pittsburg-Buffalo Co.,	Washington,	------	------	25	24	24	26	25	27	25	23	22	23	244
Peoples Coal Co.,	Allegheny,	23	20	20	22	19	14	16	7	------	------	------	------	141
Fred E. Heslep,	Washington,	26	24	27	26	24	25	23	24	22	27	25	22	295

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 11	Tom Yenechesk,	Slavonian,	Miner,	32	S.	----	----	Hazel Kirk No. 1,	Washington,	Instantly killed by fall of slate while loading a car of coal at face of working place.
13	Raffle Granietro,	Italian,	Miner,	27	M.	1	3	Cincinnati,	Washington,	Fatally injured by being caught between mine car and room pillar.
	Stephen Yurcovski,	Slavonian,	Miner,	28	M.	1	2	Hazel Kirk No. 2,	Washington,	Instantly killed by fall of slate at face of room while knocking coal.
26	Oxin Lithwin,	Russian,	Miner,	44	M.	1	4	Ellsworth No. 1,	Washington,	Killed by fall of slate at face of working place, while loading coal.
Mar. 3	Andy Zeglosky,	Polish,	Loader,	27	M.	1	2	Mongah,	Allegheny,	Killed by fall of slate while digging coal at face of room.
April 9	Samuel Caplama,	Russian,	Loader,	47	S.	----	----	Ellsworth No. 1,	Washington,	Killed by fall of slate at face of room.
19	Mike Lahowfasky,	Slavonian,	Loader,	22	S.	----	----	Hazel Kirk No. 3,	Washington,	Killed by fall of slate at face of working place while loading coal.
	Charlie Ydick,	Slavonian,	Loader,	30	S.	----	----	Mongah,	Allegheny,	Killed by fall of slate at face of working place while loading coal.
28	Mike Homonick,	Slavonian,	Loader,	25	M.	1	1	Charleroi No. 2,	Washington,	Instantly killed by fall of slate at face of room.
May 10	Michelo Valichek,	Slavonian,	Miner,	39	M.	1	2	Hazel Kirk No. 2,	Washington,	Fatally injured by fall of slate at face of working place.
25	Anton Kristofolides,	Russian,	Miner,	37	M.	1	4	Rachel,	Washington,	Killed by fall of slate at face of entry.
27	Frank Pattoe,	Polish,	Miner,	27	S.	----	----	Acme No. 1,	Washington,	Killed by coming in contact with an electric wire on the entry at the entrance to his room.
June 25	Nick Thomas,	Austrian,	Company man	30	M.	1	----	Rachel,	Washington,	*Killed by being caught between mine car and mine floor.

*Records do not show in what part of the mine this accident occurred.

TABLE 4—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
July 19	Fred Rossini,	Italian,	Loader,	25	M.	1	2	Ellsworth No. 2,	Washington,	Fatally injured by fall of coal while loading coal at the face.
22	Andy Framos,	Polish,	Miner,	19	S.			Rachel,	Washington,	Fatally injured by fall of slate at face of entry while preparing to set a post.
Aug. 20	Robert Todd,	Scotch,	Company man	37	M.	1	4	Sunnyside,	Allegheny,	Fatally injured by coming in contact with an electric wire while repairing signal line on the dilly road.
28	James Chatwick,	Slavonian,	Loader,	27	S.			Charleroi No. 2,	Washington,	Instantly killed by fall of draw slate at face of entry.
Oct. 6	Mike Cherinel,	Russian,	Loader,	28	M.	1	2	Ellsworth No. 1,	Washington,	Fatally injured by fall of slate at face of room.
11	Sallo Lazenko,	Russian,	Loader,	25	S.			Hazel Kirk No. 2,	Washington,	Killed by fall of slate at face of room while knocking coal.
15	August Angelo,	Italian,	Miner,	35	M.	1	1	Catsburg,	Washington,	Instantly killed by coming in contact with an electric wire on the dilly road while on his way out of the mine.
22	Joe Kindra,	Slavonian,	Company man	30	M.	1	3	Ellsworth No. 2,	Washington,	Fatally injured by being caught between an electric locomotive and the entry pillar.
30	Samuel Kragunes,	Slavonian,	Miner,	32	M.	1	2	Equitable,	Westmoreland,	Instantly killed by fall of coal at face of a pillar while undermining.
Nov. 11	Joe Martack,	Slavonian,	Company man	32	M.	1		Ellsworth No. 1,	Washington,	Fatally injured by being crushed between the end of an empty trip of mine cars and an electric locomotive, on one of the main passageways.
	Mike Cedar,	Russian,	Miner,	25	S.			Ellsworth No. 1,	Washington,	Fatally injured by being crushed between the end of mine car and the face of entry.

Nov. 20	Thomas Hunter, -----	English,----	Fire boss, ---	44	M.	1	3	Budd, ----------	Westmoreland.-	Fatally injured by fall of rock on one of the main passage-ways while trying to set a post.
27	John Bulsack, --------	Lithuanian,	Loader, ------	42	M.	1	4	Charleroi No. 2,	Washington,---	Instantly killed by fall of slate at face of room while knocking coal.

TABLE 5—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 4	Julion Eliowe,	Belgian,	Miner,	45	S.	Irons No. 1,	Westmoreland,	Ankle sprained by foot being caught in a road switch.
13	Felix Sanovitch,	Russian,	Miner,	48	M.	Ellsworth No. 1,	Washington,	Body injured in various places by fall of slate at face of working place.
19	Mike Marshel,	Belgian,	Miner,	40	M.	Irons No. 1,	Westmoreland,	Thumb injured by being caught between a piece of slate and a mine prop, at face of working place.
Feb. 5	John Jacob,	Lithuanian,	Company man,	23	S.	Ellsworth No. 1,	Washington,	Thigh fractured by being caught by an empty mine car at the shaft bottom.
8	Blot Idot,	Slavonian,	Miner,	32	M.	Irons No. 1,	Westmoreland,	Foot bruised by being struck by piece of falling slate at face of working place.
March 11	Joseph Vallet,	Italian,	Loader,	18	S.	Black Diamond,	Washington,	Arm fractured by fall of slate at face of working place.
16	Belo Rody,	French,	Miner,	34	S.	Irons No. 1,	Westmoreland,	Leg injured by falling post at face of working place.
17	Bert Barke,	American,	Loader,	48	S.	Gallatin,	Allegheny,	Leg cut by fall of roof on one of the main entries.
23	John McGurky,	Irish,	Loader,	45	S.	Shoenberger,	Washington,	Back injured by fall of roof at face of room.
	John Gasto,	Russian,	Loader,	31	M.	Huston Run,	Washington,	Leg broken by fall of slate at face of entry.
	William Stankus,	Russian,	Loader,	42	M.	Huston Run,	Washington,	Foot broken by fall of slate at face of entry.
24	Frank Butler,	Lithuanian,	Company man,	26	M.	Rachel,	Washington,	Leg fractured by being caught between mine cars.
25	William Collins,	American,	Miner,	33	M.	Irons No. 1,	Westmoreland,	Leg and shoulder injured by fall of slate at face of working place.
April 17	Angelo Grecly,	Italian,	Miner,	40	M.	Hazel Kirk No. 2,	Washington,	Back injured by a piece of falling slate at face of working place.
19	Cornelious Zettler,	American,	Driver,	23	S.	Hazel Kirk No. 2,	Washington,	Foot bruised by being run over by mine car.

April	21	Edward Walters,	American,	Doorboy,	17	S.	Banner,	Washington,	Hip injured by being caught between mine cars on the entry.
	26	Joseph Hrebick,	Slavonian,	Miner,	32	M.	Irons No. 1,	Westmoreland,	Head cut by a piece of falling slate at face of working place.
	28	A. J. Kavaniogh,	Irish,	Driver,	44	M.	Shoenberger,	Washington,	Leg fractured by being caught by mine car on the entry.
	30	John Butmolovich,	Polish,	Loader,	40	M.	Ellsworth No. 1,	Washington,	Ankle fractured by fall of roof at face of room.
May	14	Daniel Koots,	Slavonian,	Miner,	28	M.	Irons No. 1,	Westmoreland,	Hand injured by a pick.
	17	Jacob Kramer,	Slavonian,	Machine runner,	38	M.	Mongah,	Allegheny,	Arm cut off by being caught in the bitts of a mining machine.
	22	John Schochilli,	Polish,	Loader,	40	M.	Banner,	Washington,	Leg and rib broken by being struck by post and fall of slate at face of room.
	24	George Loverick,	Slavonian,	Loader,	23	S.	Hazel Kirk No. 1,	Washington,	Head injured by falling on a piece of coal at face of working place.
June	1	L. Hilty,	American,	Company man,	40	M.	Shoenberger,	Washington,	Leg broken by being caught between mine car and electric locomotive.
	4	Peter Sock,	Russian,	Miner,	23	M.	Acme No. 1,	Washington,	Leg bruised by being caught between mine cars.
	10	Alex. Egnot,	Russian,	Miner,	33	M.	Acme No. 1,	Washington,	Pelvis bone fractured by fall of slate at face of working place.
	11	Robert Paterson,	American,	Loader,	42	S.	Hazel Kirk No. 1,	Washington,	Thigh broken by fall of roof at face of room.
	12	August Peoline,	Italian,	Loader,	40	M.	Shoenberger,	Washington,	Arm broken by fall of slate at face of room.
	18	Mike Gracosky,	Polish,	Miner,	42	M.	Acme No. 1,	Washington,	Hip bruised by fall of slate at face of working place.
	28	Frantz Joseph,	Slavonian,	Loader,	40	M.	Shoenberger,	Washington,	Back injured by fall of slate at face of room.
July	14	Joseph Baylo,	Slavonian,	Loader,	40	S.	Ellsworth No. 3,	Washington,	Leg broken by fall of slate at face of room.
	15	Charles Utell,	Lithuanian,	Miner,	28	S.	Black Diamond,	Washington,	Back injured by fall of roof at face of pillar.
		John Chaperoui,	Lithuanian,	Miner,	34	S.	Black Diamond,	Washington,	Leg broken by fall of roof at face of pillar.
	24	James Gass,	Italian,	Miner,	28	S.	Hazel Kirk No. 2,	Washington,	Leg crushed by being run over by mine car on one of the main passage-ways.
	27	John Rehula,	Russian,	Loader,	30	S.	Charleroi No. 2,	Washington,	Hip broken by fall of slate at face of room.
	28	Peter Nacko,	Polish,	Miner,	46	M.	Ellsworth No. 3,	Washington,	Leg fractured by fall of coal at face of pillar.
		Frank Kelly,	American,	Machine runner,	32	S.	Charleroi No. 2,	Washington,	Leg broken by fall of slate at face of working place.
Aug.	4	John Collick,	Slavonian,	Miner,	33	M.	Cincinnati,	Washington,	Leg injured by fall of slate at face of working place.
		Edward Warkey,	Slavonian,	Loader,	43	M.	Hazel Kirk No. 1,	Washington,	Leg and rib broken by fall of slate at face of room.
	8	Staney Zelinskei,	Slavonian,	Miner,	48	M	Shoenberger,	Washington,	Leg fractured by fall of roof at face of pillar.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Aug. 14	Stanley Hermin,	Lithuanian,	Company man,	16	S.	Ellsworth No. 1,	Washington,	Leg broken by being caught between mine cars near the shaft bottom.
16	Frank Wascoski,	Polish,	Loader,	28	M.	Banner,	Washington,	Leg broken by fall of roof at face of room.
19	Morris Ladelli,	Italian,	Miner,	28	S.	Black Diamond,	Washington,	Foot and ankle injured by fall of roof at face of working place.
23	Joseph Alacona,	Polish,	Miner,	25	S.	Acme No. 1,	Washington,	Head cut and foot crushed by fall of slate at face of working place.
Sept. 3	Andrew Mushack,	Slavonian,	Driver,	26	S.	Hazel Kirk No. 3,	Washington,	Collar bone broken by being caught between mine car and coal pillar.
4	Fred Crosby,	Italian,	Loader,	28	M.	Ellsworth No. 1,	Washington,	Leg broken by being caught between empty mine cars.
13	Andy Halasky,	Slavonian,	Loader,	21	S.	Dunkirk,	Washington,	Face slightly burned by an explosion of gas at face of room.
16	John Putyo,	Slavonian,	Loader,	21	S.	Manown,	Allegheny,	Hip bruised by fall of coal at face of pillar.
20	Geovanni Steponi,	Italian,	Miner,	37	S.	Shoenberger,	Washington,	Back injured by fall of roof at face of pillar.
21	Andy Darno,	Slavonian,	Company man,	24	S.	Ellsworth No. 3,	Washington,	Foot severely injured by being caught between mine cars on one of the main entries.
22	Philip Mitzco,	Russian,	Loader,	30	M.	Ellsworth No. 3,	Washington,	Leg broken by being struck by a piece of falling slate while working at face of room.
25	William H. McCleany,	American,	Fire boss,	45	M.	Huston Run,	Washington,	Arm, nose and jaw broken by fall of roof on one of the main passage-ways.
	Harry Ford,	English,	Company man,	39	M.	Huston Run,	Washington,	Jaw broken by fall of roof on one of the main entries.
Oct. 15	Lustard Mosely,	American,	Loader,	30	S.	Manown,	Allegheny,	Three toes broken by post falling on them at face of room.

Oct.	16	Fedo Yeton,	Russian,	Miner,	28	M.	Acme No. 1,	Washington,	Leg broken by fall of slate at face of room.
	23	Henry Devine,	French,	Miner,	42	M.	Charleroi No. 2,	Washington,	Hip bruised by a displaced post at face of pillar.
	--	Simon Smith,	American,	Driver,	19	S.	Banner,	Washington,	Mouth injured by being kicked by a mule. Outside.
Nov.	5	Dan. Pajok,	Slavonian,	Loader,	35	M.	Budd,	Westmoreland,	Leg broken by fall of slate at face of room.
	11	Fador Peteroff,	Russian,	Loader,	34	M.	Ellsworth No. 3,	Washington,	Injured by fall of slate at face of room.
	15	George Krome,	Slavonian,	Loader,	26	S.	Manown,	Allegheny,	Leg broken by fall of slate at face of working place.
	17	Steve. Scovick,	Slavonian,	Miner,	37	M.	Mongah,	Allegheny,	Foot broken by fall of slate at face of working place.
	20	Toney Messia,	Italian,	Company man,	21	S.	Ellsworth No. 1,	Washington,	Fingers injured by being caught by the wheel of an electric locomotive on one of the entries.
	29	John Julious,	Slavonian,	Miner,	27	M.	Manown,	Allegheny,	Leg broken by being struck by a displaced post at face of a pillar.
Dec.	3	Jacob Poleny,	Russian,	Driver,	25	M.	Acme No. 1,	Washington,	Finger cut off by the wheels of a mine car in room.
	5	Stephen Strainer,	English,	Loader,	48	M.	Cincinnati,	Washington,	Foot injured by fall of rock on one of the main passage-ways.
	8	Edward Taylor,	English,	Loader,	54	M.	Equitable,	Westmoreland,	Back injured by fall of slate at face of room.
	--	Charles Fullur,	American,	Miner,	32	M.	Banner,	Washington,	Ankle broken by a piece of slate s'iding from the gob at face of a pillar.
	9	Lorey Rotunda,	Lithuanian,	Loader,	37	M.	Ellsworth No. 2,	Washington,	Arm and body injured by being caught between the end of mine car and face of entry.
	11	Joseph Layer,	Lithuanian,	Miner,	33	M.	Cincinnati,	Washington,	Arm, eye and body injured by an explosion of powder near face of an entry.
	15	Mike Beleson,	Slavonian,	Miner,	28	S.	Budd,	Westmoreland,	Toe cut off by fall of slate at face of working place.
	30	Mike Dintoki,	Italian,	Laborer,	26	M.	Ellsworth No. 2,	Washington,	Internally injured by being caught between mine car and floor of tipple. Outside.

CONDITION OF MINES

PITTSBURG-WESTMORELAND COAL COMPANY

Acme Nos. 1 and 2.—Ventilation is good in some parts and fair in other parts. Drainage is good, except at a few points.

Dunkirk.—Ventilation is insufficient and very unsteady owing to the excessive use of doors. The roadways are wet and muddy in various places. Dust is made damp by warming and moistening the entering air with exhaust steam.

Hazel Kirk No. 1.—Ventilation very good. Drainage is good in some parts and poor in other parts. Dust is made damp in the dry portions by moistening the air with steam as it enters the mine.

Hazel Kirk No. 2.—General condition of ventilation and drainage is good. Dust is dampened by moistening the air with steam as it enters the mine.

Hazel Kirk No. 3.—General condition of ventilation and drainage is good. The dust is kept damp by warming and moistening the air with steam.

Shoenberger.—Ventilation is good, except in a small portion of the mine known as First Hill. In this section the ventilation is produced naturally, and cannot be relied upon. The dust, except in one small portion of the mine, is made damp by moistening the air with exhaust steam and water sprays as it enters the mine. The dust in the small portion referred to is watered with the ordinary water box.

ELLSWORTH COLLIERIES COMPANY

Ellsworth No. 1.—Ventilation is good, except in a few of the entries in the center section of the mine. Drainage is satisfactory. Dust is dampened by moistening the air with steam as it enters the mine, and by the ordinary water box. Water pipes are at present being installed in certain passageways for the purpose of further dampening the dust.

Ellsworth No. 2.—Ventilation good. Drainage satisfactory. Dust is kept moist by warming and moistening the air with exhaust steam as it enters the mine.

Ellsworth No. 3.—Drainage and ventilation are good. Dust is made damp by moistening the ingoing air with steam.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Black Diamond.—Ventilation is good in a few entries, but in the major portion of the mine it is insufficient and very unsteady. Drainage is good. The dust on the floor of the roadways is watered with the old time water box.

Catsburg.—Ventilation is fair in the operating portions. General condition of drainage good. On the roadways the dust is watered with a sprinkling car, which waters the roof and sides and floor.

Coal Bluff.—Ventilation is only fair. Drainage is good. The dust on the floor of the roadways is watered with the ordinary water box.

Cincinnati.—Ventilation is only fair. Drainage excellent. Dust on floor of roadways is watered by water box.

Gallatin.—The ventilation is good in a few entries, but in the greater portion of the workings the air is insufficient. Drainage is excellent. The roof and sides and floor of the passageways are watered by a sprinkling car.

Mongah.—Ventilation is insufficient, except in a small portion of the workings. General condition of drainage is good. Roadways are watered by means of a sprinkling car.

Sunnyside.—Ventilation good, except in some of the advance workings in which the air was not sufficiently circulated to the faces. Drainage is good. Watering of dust is done with the common water box.

PITTSBURG COAL COMPANY

Banner, Equitable and Manown are in good condition. Each of these mines is provided with a sprinkling car capable of watering the roof, sides and floor of the entries. Steam is also exhausted into the inlet air at Banner and Equitable.

UNITED COAL COMPANY

Ella.—Ventilation and drainage are good. Dust is watered by a sprinkling car and by the old style water box.

CHARLEROI COAL WORKS

Charleroi Nos. 1 and 2.—Ventilation is good in some portions and fair in other portions. Drainage and other conditions are good. The dust in No. 2 mine is made moist by a humidifying system placed in the fan drift, consisting of pipes through which live steam is passed, thus heating the air as it enters, and at the same point a number of water spraying devices are constantly moistening the air. Spraying devices are also placed at various points in the interior of the mine, and these further assist in keeping the air in a humid state.

YOUGHIOGHENY AND OHIO COAL COMPANY

Budd.—Ventilation is insufficient, except in a small portion. Drainage is good. The dust on the roadways is watered with the regular water box.

DIAMOND COAL AND COKE COMPANY

Huston Run.—Ventilation is very poor, except in one pair of entries. Drainage is good.

HENDERSON COAL COMPANY

Irons Nos. 1 and 2.—The roadways are wet and muddy in many places, but the ventilation and other conditions are good.

PITTSBURG-BUFFALO COMPANY

Rachel and Blanch.—In some parts of the mine the volume of air is very good and in other portions it is only fair, but in all parts the air currents are very constant, maintaining a most excellent sanitary condition. The mine is neat and clean, and rigid regulation is maintained regarding the firing of shots and the watering and wetting of

dust. Water pipes are carried to the face of each entry, and hose connections are so arranged as to make it possible to water wherever desired. Dust is further dampened by a number of water spraying devices placed in the inlet airways. Steam is also exhausted into the downcast shaft in the cold months, and this further assists in keeping the air in a humid state.

PEOPLES COAL COMPANY

Clinton.—Ventilation is good on the entries, but very poor at the face of most rooms and pillars. Drainage good, except at a few points.

FRED E. HESLEP

Heslep.—Ventilation fair. Drainage good.

STAR COAL COMPANY

Star.—Idle.

CANE COAL COMPANY

Sterling.—Idle.

IMPROVEMENTS

PITTSBURG-WESTMORELAND COAL COMPANY

Acme No. 1.—Electric haulage has been replaced by endless rope, with necessary engine, engine room and steam connections, etc. A trestle of steel has been built from the tipple across the railroad track, for the purpose of conveying the mine refuse to a new dumping ground.

Acme No. 2.—Erected steel tipple, coal washery and storage bin. Built three hundred long ovens with necessary machinery, railroad sidings, etc. The washery is built of reinforced concrete, and equipped with Stewart jigs capable of washing 1,800 tons of coal per day. The storage bin is also built of reinforced concrete and has a capacity of 2,000 tons. It is estimated that this plant when in full operation will be capable of producing about 1,000 tons of coke per day.

ELLSWORTH COLLIERIES COMPANY

Ellsworth No. 2.—A new steel tipple of modern design and equipped with modern tippling machinery has been erected, replacing an old wooden structure that was destroyed the latter part of the year by fire.

UNITED COAL COMPANY

Ella.—Built three overcasts of masonry, dispensing with six doors on the main haulage roads.

CHARLEROI COAL WORKS

Charleroi Nos. 1 and 2.—Erected concrete machine shop and power house. Laid main haulage road with 90-pound T rail. Installed three Weimer electric pumps with capacity of 75 gallons; slack conveyor at railroad tipple, and fifty new mine wagons. Placed an ex-

haust steam apparatus at the entrance of the mine in the inlet airway for the purpose of keeping the air in a humid state, assisted by water spraying devices at various points in the airways in the interior of the mine. Placed an auxiliary Stine fan on Maple Creek section, diameter 6 feet, width of blades 1 foot, 6 inches, depth of blades 2 feet, 5 inches. Set derailing device on incline plane. Provided chemical fire engine for fighting mine fires, and three complete Draeger oxygen helmets and recharging apparatus. Built four masonry overcasts, dispensing with all doors on main haulage. Manway on each side of mine placed in first class condition for travel. The use of black blasting powder has been discontinued, and permissible explosives are used, with competent and authorized persons doing all blasting. Locked safety-lamps have replaced open lamps in pillar workings.

YOUGIOGHENY AND OHIO COAL COMPANY

Budd.—Installed a 10-foot ventilating fan of the Capell type, 150 horse power Ridgway engine, and 150 horse power boiler. A new generator engine has also been provided.

HENDERSON COAL COMPANY

Irons Nos. 1 and 2.—Considerable ditching has been done, dispensing with the use of four pumps. A new check house, 20 by 98 feet, has been built. It is very much larger than the old one and more fully protects the checking machinery and employes in bad weather.

Prosecutions for Violations of the Mining Laws

July 20, the following letter was received from Thomas Kearney and Harry Brown:

"Dear Sir: The undersigned do prefer charges against Thomas Gatehouse, mine foreman, also assistant mine foreman, E. Sweet, for taking down danger board and putting men to work in explosive gas, also for firing shots in explosive gas the fourteenth day of July and previous to this time in Rachel mine, Marianna."

Information was made against Thomas Gatehouse, mine foreman at Rachel mine, Pittsburg-Buffalo Company, but assistant mine foreman Sweet was not included, as it was understood that whatever he may have done was done under orders from his superior, Gatehouse. Gatehouse was charged with violation of Section 6 of Article 6 of the Bituminous Mining Law, requiring that the mine foreman shall give prompt attention to the removal of all dangers reported to him by the fire boss; also with violation of the general provisions of Section 1 of Article 21 that forbids the doing of any act whatsoever whereby the lives or health of persons or the security of the miners or machinery are endangered. The case was tried August 19 and 20, and Gatehouse was found guilty. He was sentenced to pay costs and fined $100.00.

July 29, James Cameron, mine foreman at Mongah mine of the Monongahela River Consolidated Coal and Coke Company, was charged with failing to provide shelter holes on one of the main haulage ways on which persons were required to travel to and from work. He entered a plea of guilty at the September term of court and was sentenced to pay a fine of $15.00 and costs.

No. 101 November Term. Jonathan Pegford, miner, Charleroi mine, Charleroi Coal Works, was charged with a violation of the mine law in taking an open light into a part of the mine where safety lamps were required to be used, and was found guilty and obliged to pay the costs and expense of the trial.

No. 100 November Term. John Rees, miner, Charleroi mine, Charleroi Coal Works, was charged with a violation of the mine law in taking an open light into a part of the mine where safety lamps were required to be used, and was found guilty and obliged to pay the costs and expense of the trial.

No. 119 November Term. Thomas Patterson, a miner at Hazel Kirk No. 1 mine, of the Pittsburg-Westmoreland Coal Company, was charged with passing a danger signal and entering a room that was fenced off, without permission, and also with having removed the danger board. The case came to trial November 8, and the defendant plead guilty and was sentenced to pay a fine of $50.00 and costs.

September 23, Andy Zemack and Dominic Gillis, machine men at Hazel Kirk No. 1 mine, Pittsburg-Westmoreland Coal Company, were found operating a cutting machine at the face of an entry known as No. 8 Butt off left face and using open lights, although they were at that time beyond a danger signal that plainly set forth that in that part of the mine no open lights were to be used. Information was made against them October 1, and they were arrested and gave bail for court. The case came to trial November 8, and Zemack, who was tried first, was found guilty and sentenced to pay a fine of $100.00 and costs and undergo imprisonment in the county jail for 60 days. Before the case of Gillis was called to trial, he entered a plea of guilty and was sentenced to pay a fine of $100.00 and costs and undergo imprisonment in the county jail for 60 days.

December 31, information was made against Thomas Jenkins, mine foreman at the Huston Run mine of the Diamond Coal and Coke Company, charging in substance:

1—Cut-throughs for the purpose of ventilation more than 35 yards apart.

2—Insufficient check doors to conduct ventilation through the cut-throughs.

3—Failure to provide proper shelter holes on animal haulage roads.

4—Failure to provide proper shelter holes on machinery haulage roads.

5—Failure to measure air current once a week.

6—Failure to record air measurements.

7—Permitting more than 65 men to work in the same air current without permission from the mine inspector.

January 17, the defendant appeared before the court, and, after pleading in person and by his counsel that the offence was due to the fact that the mine was new and everything not yet in running order and that he would be careful in every particular to obey the law hereafter and that he had saved the county the trouble and expense of a trial, he was warned by the court of the danger to him of a repetition of the offence and was fined $1.00 and costs.

December 31, information was made against F. R. Barnum, mine superintendent at the Huston Run mine of the Diamond Coal and Coke Company, charging in substance that Barnum had failed to

provide proper recording instruments for measuring the number of revolutions of the ventilating fan at the mine and the effective ventilating pressure, and also failure to preserve registration of the number of revolutions of the fan and the effective ventilating pressure as required by law. January 17, the defendant appeared before the court, and, after pleading in person and by counsel that the offence was due to the fact that the mine was new and everything not yet in running order, and that this was his first offence and that he had saved the county the trouble and expense of a new trial, he was fined $1.00 and costs.

Commonwealth ex rel. Alexander McCanch, 1st District, Arthur Neale, 7th District, and F. W. Cunningham, 21st District, vs. Pittsburg-Westmoreland Coal Company and Dunkirk Gas Coal Company, operating Dunkirk mine, Carroll Township, Washington county, Pa. Bill in Equity at No. 1887, Court of Common Pleas of Washington county, sitting in Equity. The bill averred, in substance, an examination of said mine by said Inspectors, and a finding by them that the said mine could not be operated with safety with less than 115,000 cubic feet of air per minute at the ventilator, not less than 60 per cent. being constantly circulated to and about the face of the workings. This was reduced to writing and rendered in the form of a decision, under date of September 22, 1909, delivered to Bradford McIntyre, Superintendent. Seven days elapsed and no appeal taken. After further investigation by Inspectors named, on October 4 and 5, 1909, they were of opinion that immediate danger existed in said mine, and, under date of October 6, 1909, they instructed said Superintendent, in writing, over their signatures, to remove the danger forthwith; and, that it might not be necessary to shut the mine down, suggested that, pending the installation of machinery, etc., the mine might be operated with a reasonable degree of safety by working same exclusively with locked safety lamps, except in certain indicated parts thereof, provided said excepted parts continued to be inlet air ways. On October 11, 1909, said Inspectors again examined the mine and found that the dangerous conditions had not been removed by supplying the air required, nor had the suggestions been adopted. Bill for injunction and other relief filed October 12, 1909. October 12, 1909, rule on defendants, returnable October 14, to show cause why an injunction should not be granted. October 14, 1909, parties conferred at suggestion of Court. October 14, 1909, Decree of Court setting forth agreement of defendants to install the ventilation required by notice of Inspectors within ninety days, pending which mine to be worked in accordance with suggestions made by Inspectors, proceedings to be suspended meanwhile. Defendants to pay costs.

October 2, 1909, Inspector Alexander McCanch, 1st District, wrote to Mr. W. E. Lahm, Superintendent of the Ellsworth Collieries Company, calling his attention to the dangers of the electrical installation in Ellsworth Nos. 3 and 4 mines. Under date of October 6, 1909, Mr. Benjamin Holliday, General Superintendent of the company, wrote Inspector McCanch, informing him that he had been advised by counsel that the company was acting within its rights under a former decision of the Court of Quarter Sessions of Washington county. October 27, 28 and 29, 1909, Inspectors C. B. Ross, 2nd District, T. K. Adams, 3rd District, Elias Phillips, 4th District, Isaac G. Roby, 5th District, Arthur Neale, 7th District, Joseph Knapper, 8th District,

John F. Bell, 13th District, and F. W. Cunningham, 21st District, delegated for the purpose by the Chief of Department of Mines, in conjunction with Inspector McCanch, made an examination of said mines. Then followed conferences among the Inspectors alone, with counsel, and with representatives of the company, and finally the whole matter was settled by an agreement reduced to writing and signed for the company by Benjamin Holliday, General Superintendent, and W. A. James, Chief Engineer, dated November 8, 1909, wherein it was promised and agreed as to the future operation of said mines, as follows, to wit:

"That the main haulage ways of said mines shall be so changed that hereafter they shall be and remain intake air ways; and in all parts of said mines, except such parts of said main haulage ways as shall be within the limits of stations to be established at points to be agreed upon by the Mine Inspector of the district and the Mine Foreman, all electric wires and electric machinery and all other mechanical devices attached thereto and connected therewith shall be constructed and protected and maintained in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of said mines.

The changes necessary to carry the foregoing into effect shall be made without more delay than may be absolutely necessary."

November 4, 1909, after careful examination of the Acme mines of the Pittsburg-Westmoreland Coal Company, located at Bentleyville, Washington county, C. B. Ross, 2nd District, T. K. Adams, 3rd District, Elias Phillips, 4th District, Isaac G. Roby, 5th District, Arthur Neale, 7th District, Joseph Knapper, 8th District, John F. Bell, 13th District, and F. W. Cunningham, 21st District, appointed by the Chief of Department of Mines to act in conjunction with Alexander McCanch, 1st District, in the matter, together with said Inspector McCanch, being agreed in the opinion, after full investigation, that immediate danger existed in said mines by reason of the fact that the wires and machinery and other mechanical devices attached thereto and connected therewith, and employed in said mines, were not constructed and protected in such manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of said mines, instructed Mr. Donald Darroch, Superintendent of said mines, in writing, to remove the dangerous conditions forthwith, and gave him notice that an injunction would be applied for should he fail to comply with said notice. Mistaking this notice for a decision under Article XIV of the Bituminous Mining Law, under date of November 12, 1909, the Pittsburg-Westmoreland Coal Company, by H. K. Knopf, its General Superintendent, petitioned the Court for an allowance to appeal and to appoint a Board to inspect and report, whereupon the Court appointed James Blick, Benjamin Ferriday and Jesse K. Johnson. Before any action was taken by the Board several conferences were held between the Inspectors and their counsel and the officers and representatives of the company and their counsel, and at last the matter was settled by promise given and reduced to writing and signed for the coal company by H. K. Knopf, its General Superintendent, wherein it was promised and agreed as to the future operation of said mines as follows, to wit:

"That in all parts of said mine, except on main intake airways, as indicated by black lines on blue print hereto attached, and between points to be established as developments progress (by agreement be-

tween the Mine Inspector of the district and the mine foremen, *but this exception shall not include any parts of said airways passing active workings, or on butt entries)*, all electric wires and electric machinery and all other mechanical devices attached thereto and connected therewith shall be constructed and protected and maintained in such a manner as to secure freedom from the emission of sparks or flame therefrom into the atmosphere of said mine.

The changes necessary to carry the foregoing into effect shall be made without more delay than may be absolutely necessary."

November 22, 1909, it having been made to appear to the Court that a settlement had been effected, the company was permitted to withdraw its appeal and was directed to pay the costs.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in Council Chambers, Monongahela, April 6, 7, 8 and 9.

The Board of Examiners was composed of W. H. Howarth, Mine Inspector; John McVicker, Superintendent; and A. N. Jenkins, Mine Foreman.

The following persons having passed a satisfactory examination, were granted certificates as Mine Foremen:

First Grade

A. M. Harper, Belle Vernon; John Carroll, Monongahela; Dennis A. Kerwin, Elizabeth; Lewis B. Anderson, Monongahela.

SECOND DISTRICT

WESTMORELAND COUNTY

Greensburg, Pa., February 28, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines of the Second Bituminous District for the year ending December 31, 1909, in compliance with the Acts of Assembly of May 15, 1893, and April 14, 1903.

The report contains the usual tables and statistics, a brief description of the mines and the most important improvements made during the year, a report of the legal proceedings instituted, and a report of the annual examination of applicants for mine foremen's certificates.

Respectfully submitted,

C. B. ROSS, Inspector.

SUMMARY OF STATISTICS

Number of mines,	57
Number of mines in operation,	54
Number of tons of coal shipped to market,	4,736,052
Number of tons used at mines for steam and heat,	235,599
Number of tons sold to local trade and used by employes,	64,373
Number of tons used in the manufacture of coke,	3,652,316
Number of tons of coal produced,	8,689,340
Number of tons of coke produced,	2,456,311
Number of coke ovens,	5,807
Number of coke ovens in operation,	5,174
Number of tons of coal produced by pick mining,	7,649,889
Number of tons produced by compressed air machines,	968,351
Number of tons produced by electrical machines,	71,100
Number of persons employed inside of mines,	7,026
Number of persons employed outside, including coke workers,	3,026
Number of persons employed at manufacture of coke,	1,675
Number of fatal accidents inside of mines,	41
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	57
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	211,935
Number of persons employed per fatal accident inside,	171
Number of persons employed per fatal accident outside,	1,009
Number of persons employed per non-fatal accident inside,	123
Number of persons employed per non-fatal accident outside,	1,513
Number of wives made widows,	21
Number of children made orphans,	39
Number of steam locomotives used inside of mines,	—
Number of steam locomotives used outside,	20
Number of compressed air locomotives used inside,	24
Number of compressed air locomotives used outside,	—
Number of electric motors used inside,	20
Number of electric motors used outside,	—
Number of fans in use,	49
Number of furnaces in use,	6
Number of gaseous mines in operation,	27
Number of non-gaseous mines in operation,	27
Number of new mines opened,	—
Number of old mines abandoned,	—

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Jamison Coal and Coke Company,	2,608,205
Keystone Coal and Coke Company,	1,963,340
Latrobe-Connellsville Coal and Coke Company,	1,034,105
H. C. Frick Coke Company,	596,918
Loyalhanna Coal and Coke Company,	456,741
Hostetter-Connellsville Coke Company,	387,283
Atlantic Crushed Coke Company,	302,696
Donohoe Coke Company,	209,667
Ligonier Coal Company,	179,190
Latrobe Coal Company,	170,521
Shenango Furnace Company,	131,304
Mount Pleasant Coke Company,	115,398
Fort Ligonier Coal Company,	85,075
Ligonier Diamond Coal and Coke Company,	78,539
Whyel Coke Company,	75,463
Columbia Coal and Coke Company,	71,736
Unity Coal Company,	68,242
Fort Palmer Coal and Coke Company,	47,283
Unity-Connellsville Coke Company,	45,200
E. A. Humphries Coal and Coke Company,	22,859
South Fayette Coke Company,	13,629
Marietta-Connellsville Coke Company,	10,448
Northern Connellsville Coke Company,	7,579
Darlington Coal Company,	6,919
New Alexandria Coke Company,	1,000
Total,	8,689,340

Production by Counties

Westmoreland,	8,689,340

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Jamison Coal and Coke Co.,	13	2	15	22	--------	22	200,631	118,555	1,674	782	2,456	129	391	76	--------
Keystone Coal and Coke Co.,	7	--------	7	12	--------	12	280,477	163,612	1,549	473	2,022	221	--------	129	--------
Latrobe-Connellsville Coal and Coke Co.,	7	--------	7	4	--------	4	147,729	258,526	983	341	1,324	140	--------	246	--------
H. C. Frick Coke Co.,	4	--------	4	5	--------	5	149,229	119,384	479	294	773	120	--------	96	--------
Loyalhanna Coal and Coke Co.,	1	--------	1	3	--------	3	456,741	152,247	386	83	469	386	--------	129	--------
Hostetter Connellsville Coke Co.,	4	--------	4	4	--------	4	96,821	96,821	481	359	840	120	--------	120	--------
Atlantic Crushed Coke Co.,	2	--------	2	5	1	6	151,348	60,539	304	74	378	152	--------	61	74
Donohoe Coke Co.,	1	--------	1	--------	--------	--------	209,667	--------	126	111	237	126	--------	--------	--------
Ligonier Coal Co.,	2	--------	2	--------	--------	--------	89,595	--------	174	32	206	87	--------	--------	--------
Shenango Furnace Co.,	--------	--------	--------	1	--------	1	--------	131,304	87	61	148	--------	--------	87	--------
Mount Pleasant Coke Co.,	--------	--------	--------	--------	1	1	--------	--------	100	82	182	--------	--------	--------	82
Fort Palmer Coal and Coke Co.,	--------	1	1	--------	--------	--------	--------	--------	46	54	100	--------	54	--------	--------
Unity-Connellsville, Coke Co.,	--------	--------	--------	1	--------	1	--------	45,200	39	37	76	--------	--------	39	--------
Miscellaneous Companies,	--------	--------	--------	--------	--------	--------	--------	--------	598	243	841	--------	--------	--------	--------
Totals and averages for district,	41	3	44	57	2	59	211,935	152,444	7,026	3,026	10,052	171	1,009	123	1,513

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal.	----	----	1	1	----	1	1	----	----	----	----	1	5	12.20
Falls of slate,	1	3	3	1	2	1	2	1	1	1	1	3	20	48.78
Falls of roof,	2	----	3	1	----	----	----	1	----	----	1	----	8	19.51
Mine cars,	1	----	1	----	1	1	----	----	2	----	1	----	7	17.07
Falling into shafts,	----	----	----	----	----	----	1	----	----	----	----	----	1	2.44
Totals,	4	3	8	3	3	3	4	2	3	1	3	4	41	100.00
Causes of Accidents Outside														
Cars,	----	----	1	----	----	----	----	----	----	----	----	----	1	33.33
Machinery,	----	----	----	----	----	1	----	----	----	1	----	----	2	66.67
Totals,	----	----	1	----	----	1	----	----	----	1	----	----	3	100.00
Grand totals inside and outside,	4	3	9	3	3	4	4	2	3	2	3	4	44	.....

TABLE D.—Classification of Non-fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	----	----	1	1	----	1	1	----	1	----	1	7	12.28
Falls of slate,	3	3	3	1	4	2	----	2	3	1	2	3	27	47.37
Falls of roof,	2	1	1	----	----	----	----	----	----	----	----	----	4	7.02
Mine cars,	1	1	1	1	----	1	1	----	3	2	1	2	14	24.56
Blasts, premature and otherwise,	----	----	----	----	----	----	1	----	1	----	----	----	2	3.51
Mules,	----	1	----	----	----	----	----	----	----	1	----	----	2	3.51
Machinery,	----	----	1	----	----	----	----	----	----	----	----	----	1	1.75
Totals,	7	6	6	3	5	3	3	3	7	5	3	6	57	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	----	1	----	1	50.00
Miscellaneous,	----	----	----	----	----	----	1	----	----	----	----	----	1	50.00
Totals,	----	----	----	----	----	----	1	----	----	----	1	----	2	100.00
Grand totals inside and outside,	7	6	6	3	5	3	4	3	7	5	4	6	59	.....

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	3	8	3	2	3	3	1	2	1	1	2	32
Machine loaders,	1	----	----	----	----	----	----	1	----	----	----	----	2
Drivers and runners,	----	----	----	----	1	----	----	----	----	----	1	----	2
Company men,	----	----	----	----	----	----	1	----	----	----	1	2	4
Engineers,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	4	3	8	3	3	3	4	2	3	1	3	4	41
Outside													
Company men,	----	----	1	----	----	1	----	----	----	1	----	----	3
Totals,	----	----	1	----	----	1	----	----	----	1	----	----	3
Grand totals inside and outside,	4	3	9	3	3	4	4	2	3	2	3	4	44

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	4	4	3	2	4	1	3	1	5	2	2	3	35
Machine runners,	----	----	----	----	----	----	----	1	----	----	----	----	1
Machine loaders,	1	----	1	----	1	----	----	----	----	----	----	1	4
Machine scrapers,	----	----	1	----	----	----	----	1	----	----	----	----	2
Drivers and runners,	----	2	----	1	----	1	----	----	1	3	----	2	10
Shot firers,	----	----	----	----	----	----	----	----	1	----	----	----	1
Couplers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Company men,	----	----	1	----	----	1	----	----	----	----	----	----	2
Engineers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	7	6	6	3	5	3	3	3	7	5	3	6	57
Outside													
Miners,	----	----	----	----	----	----	1	----	----	----	----	----	1
Company men,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	----	----	----	----	----	----	1	----	----	----	1	----	2
Grand totals inside and outside,	7	6	6	3	5	3	4	3	7	5	4	6	59

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	1	1	----	2	----	----	1	1	2	2	10
Polish,	2	----	----	----	----	----	----	1	1	1	1	1	7
Italian,	----	----	2	----	2	----	2	----	1	----	----	----	7
Slavonian,	1	1	1	----	----	1	2	----	----	----	----	1	7
Austrian,	1	2	4	----	1	1	----	1	----	----	----	----	10
Russian,	----	----	1	2	----	----	----	----	----	----	----	----	3
Totals,	4	3	9	3	3	4	4	2	3	2	3	4	44

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	3	1	1	----	----	1	1	----	1	1	1	3	13
English,	----	----	----	----	----	----	----	----	1	----	----	----	1
Welsh,	----	----	----	----	1	----	----	----	----	----	----	----	1
Scotch,	----	----	----	1	----	----	1	----	----	----	----	----	2
Irish,	----	----	----	----	----	----	----	----	----	----	----	1	1
German,	1	----	----	----	----	----	----	----	----	----	----	----	1
Polish,	----	1	2	1	1	----	----	----	----	3	----	----	8
Hungarian,	----	----	----	----	1	1	----	----	2	----	----	----	4
Italian,	2	1	1	----	1	----	----	----	----	----	1	1	7
Slavonian,	----	2	2	----	1	1	1	2	----	1	2	----	12
Austrian,	1	1	----	1	----	----	1	1	2	----	----	1	8
Finnish,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	7	6	6	3	5	3	4	2	7	5	4	6	59

TABLE I.—Operators and mines, kind of openings, type and size of of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Jamison Coal and Coke Co.																
Jamison No. 1,	Slopes,	Gaseous,	Fan,	16	7	4.5	116	2.4	Lepley,	Steam,	----	4	146,000	83,150	146,500	303
Jamison No. 2,	Shaft,	Gaseous,	Fan,	13.5	7	5.5	135	2	Capell,		----	10	164,630	120,850	164,200	412
Jamison No. 3,	Shaft,	Gaseous,	Fan,	13.5	7	5.5	140	1.6	Capell,		----	11	175,740	136,340	176,000	371
Jamison No. 4,	Slopes,	Gaseous,	Fan,	18	7.5	4	76	1.3	Capell,		----	9	141,800	92,600	143,400	423
Jamison No. 5,	Drift,	Non-gas.,	Fan,	10	3	2.5	*	------	Brazil,		----	1	24,300	15,400	24,300	64
Jamison No. 6,	Slope,	Non-gas.,	Fan,	15	6	4	50	.1	Guibal,		----	2	56,700	31,600	56,480	101
Keystone Coal and Coke Co.																
Hempfield No. 1,	Slope,	Gaseous,	Fan,	16	7	4.5	100	1.5	Capell,	Steam,	----	4	120,400	76,780	120,920	250
Hempfield No. 2,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	------	------	6	1	13,500	12,000	13,680	37
Hempfield No. 3,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	------	------	72	3	36,180	28,520	36,500	106
Greensburg No. 1,	Slope,	Gaseous,	Fan,	12	5.5	3.5	140	1.4	Guibal,	Steam,	----	3	64,980	37,740	65,400	134
Greensburg No. 2,	Slope,	Gaseous,	Fan,	16	7	4.5	150	3.8	Capell,	Steam,	----	7	157,500	80,690	157,500	300
Greensburg No. 3,	Slope,	Gaseous,	Fan,	12	3.5	3	60	.6	Brazil,	Steam,	----	3	47,520	27,300	48,000	87
Salem,	Drifts,	Gaseous,	Fans,	15	7	4.5	94	1.1	Capell,	Steam,	----	10	155,400	108,120	155,000	236
				10	3	4.5	172	.3	Stine,	Steam,						
Carbon,	Slope,	Gaseous,	Fan,	13.5	5	4.3	140	1.8	Capell,	Steam,	----	11	147,080	128,830	148,960	303
Seaboard,†	Shaft,	Gaseous,	------	------	------	------	------	------	------	------	----	1	36,000	10,080	36,600	11
Huron No. 1,	Drift,	Non-gas.,	Fan,	10	3	3.5	30	.1	Brazil,	Steam,	----	1	18,000	14,250	18,200	85
Huron No. 2,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	------	------	49	1	23,800	17,800	23,880	
Huron No. 3,*	Drift,	Non-gas.,	Fan,	12	4	3.5	50	.1	Brazil,	Steam,	----	----	------	------	------	------

*Idle.
†Ventilated by fan at No. 2 mine.

Latrobe-Connellsville Coal and Coke Co.																	
Saxman,	Shaft,	Gaseous,	Fan,	20	6.5	7	80	.7	Brazil,	Steam,	4	145,760	73,190	145,700	179
Superior No. 1,	Shaft,	Gaseous,	Fan,	12	3.5	3	100	.5	Brazil,		3	57,200	34,840	58,240	143
Superior No. 2,	Drift,	Non-gas.,	Fan,	12	4.5	3	62	.6	Brazil,		1	24,080	16,800	24,500	75
Gilson,	Slope,	Gaseous,	Fan,	20	6.5	7	64	.9	Brazil,		3	74,400	40,620	74,500	239
Derry No. 1,	Shaft,	Gaseous,	Fan,	16	7	4.5	90	1.1	Capell,		4	105,600	49,800	106,080	230
Derry No. 2,*	Shaft,	Non-gas.,	Fan,	20	6	5	------	------	Guibal,		----	----------	----------	----------	1
Millwood,	Shaft,	Gaseous,	Fan,	13.5	4	5	120	1.5	Capell,		3	71,930	57,400	72,240	116
H. C. Frick Coke Co.																	
Baggaley,	Slope,	Gaseous,	Fan,	20	6	5	100	2.8	Guibal,	Steam,	5	145,500	83,320	145,760	264
Dorothy,	Shaft,	Gaseous,	Fan,	20	7	6.5	60	.5			4	111,920	86,240	112,200	161
Monastery,†	Slope,	Gaseous,	Fan,*	15	4.3	4	*	------			1	25,800	16,800	25,600	54
Loyalhanna Coal and Coke Co.																	
Loyalhanna Nos. 1 and 2,	Shafts,	Gaseous,	Fan,	18	6	4.7	80	1	Brazil,	Steam,	5	103,320	66,730	103,380	242
Pandora,	Shaft,	Gaseous,	Fan,	25	8	8.5	66	1.6	Guibal,		5	71,500	57,320	55,320	144
Hostetter-Connellsville Coke Co.																	
Whitney,	Slope,	Gaseous,	Fan,	20	8	5.5	90	2	Robinson,	Steam,	5	130,480	75,740	130,800	220
Hostetter,	Slope,	Gaseous,	Fan,	20	9	5	80	1.9	Lepley,		6	159,760	117,750	159,800	261
Atlantic Crushed Coke Co.																	
Atlantic No. 2,	Slope,	Gaseous,	Fan,	6	4	2.5	300	.2	Capell,	Steam,	2	51,500	34,020	49,000	94
Atlantic No. 3,	Shaft,	Gaseous,	Fan,	16	4.5	4.8	70	.5	Brazil,		3	67,320	49,800	68,400	177
Atlantic No. 4,	Shaft,	Non-gas.,	Fan,	9	3.5	2.9	42	.1	Clifford,		1	23,500	19,500	24,000	33
Donohoe Coke Co.																	
Donohoe,	Slope,	Gaseous,	Fan,	11	6.5	5	122	1.6	Capell,	Steam,	5	94,350	52,140	94,410	126
Ligonier Coal Co.																	
Ligonier No. 2,	Shaft,	Non-gas.,	Fan,	12	4	3	90	.5	Guibal,	Steam,	3	42,500	34,500	42,000	174
Latrobe Coal Co.																	
Latrobe No. 1,	Slope,	Gaseous,	Fan,	20	6	5	67	1.4	Guibal,	Steam,	3	72,000	52,200	71,600	103
Latrobe No. 2,	Slope,	Non-gas.,	Fan,	10	3	4.5	104	.2	Stine,		3	30,000	27,840	30,000	44
Shenango Furnace Co.																	
Wilpen,	Drift,	Non-gas.,	Fan,	8	2	3	200	.2	Stine,	Electricity,	1	42,380	25,200	43,200	87
Mount Pleasant Coke Co.																	
Beatty,	Drift,	Non-gas.,	Fan,	18	6	5	55	.2	Brazil,	Steam,	3	87,200	52,300	87,350	100

*Idle.
†Ventilated by fan at Dorothy mine.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Fort Ligonier Coal Co.																
Fort Ligonier No. 1,	Drift,	Non-gas.,	Fan,	13	3.8	3.3	60	.5	Brazil,	Gasoline,		1	43,200	24,000	43,200	42
Ligonier Diamond Coal and Coke Co.																
Diamond,	Drift,	Non-gas.,	Fan,	10	3	2.8	70	.1	Brazil,	Steam,		1	25,200	13,500	25,600	49
Whyel Coke Co.																
Ellen No. 1,	Slope,	Non-gas.,	Fan,	4	2	1	450	.1	Robinson,	Electricity,		1	16,000	11,200	16,800	18
Ellen No. 2,	Drift,	Non-gas.,	Fan,	12	4	3	60		Brazil,	Steam,		1	21,600	13,680	21,840	31
Columbia Coal and Coke Co.																
Old Colony No. 1,	Drift,	Non-gas.,	Fan,	7	2	3	250	.1	Stine,	Steam,		1	31,500	11,200	25,140	46
Old Colony No. 2,	Drift,	Non-gas.,	Fan,								25	1	14,040	10,350	14,400	40
Unity Coal Co.																
Carney,	Slope,	Non-gas.,	Fan,	12	3.5	3	80	.4	Brazil,	Steam,		1	31,400	15,400	31,600	101
Fort Palmer Coal and Coke Co.																
Fort Palmer No. 1,	Drift,	Non-gas.,	Fan,	16	4	4	82	.1	Brazil,	Electricity,		1	44,100	19,200	44,200	46
Unity-Connellsville Coke Co.																
Elizabeth,	Slope,	Non-gas.,	Radi. by steam,									1	12,400	10,800	13,000	39

E. A. Humphries Coal and Coke Co.																
Chester No. 2,	Drift,	Non-gas.,	Fan,	2	3	1	450		Robinson,	Steam,		1	10,800	9,000	11,200	35
South Fayette Coke Co.																
Shirey,	Slope,	Non-gas.,	Fan,	10	3	2.5	60		Brazil,	Electricity,		1	17,200	9,000	17,600	23
Marietta-Connellsville Coke Co.																
Marietta,	Drift,	Non-gas.,	Furnace,								12	1	9,800	7,000	10,000	20
Northern Connellsville Coke Co.																
Marthabel,	Drift,	Non-gas.,	Furnace,								15	1	13,440	10,500	14,000	25
Darlington Coal Co.																
Houston,	Drift,	Non-gas.,	Fan,	18	6	5	55	.2	Brazil,	Steam,		1	36,000	18,720	36,400	13
New Alexandria Coke Co.																
Richard,	Drift,	Non-gas.,	Furnace,								4	1	14,040	10,240	14,400	8
Bessemer Coke Co.																
Duquesne,*	Slope,	Non-gas.,	Fan,	18	5.5	4.5			Brazil,	Steam,						

*Idle.

NOTE.—Where the inlet quantity greatly exceeds the outlet, the difference is caused by, first, broken surface where a force fan is used: second, where the fan engine is not supplied with a governor to regulate the speed of the fan and keep it constant. The latter also applies to where the outlet quantity greatly exceeds the inlet; an exhaust fan is used and the conditions are the same. Where the inlet and outlet quantities are the same, or where the inlet is slightly in excess of the outlet, in the absence of broken surface or a variation of the fan speed, the condition is due to temperature. The outside temperature and that of the mine being equal, and no gases being given off from any part of the mine, the inlet and outlet quantities would of course be equal. Where the mine temperature becomes lower than the outside temperature, the volume at the outlet naturally becomes contracted into less space than that at the inlet which is at a higher temperature, and in the absence of the evolution of any gas from the mine, the outlet quantity becomes less in volume than the inlet. Where the inlet quantity exceeds the outlet with furnace ventilation, the cause is broken surface, which allows the natural conditions (due to a variation of temperature caused by different conditions as they are found to exist) to operate against the furnace.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Jamison Coal and Coke Co.,	Jamison No. 2,	Shaft,	Gaseous,	26	Compressed Air,	Pittsburg,	84	87	80	126,914
	Jamison No. 3,	Shaft,		17			84	87	80	128,263
	Jamison No. 4,	Slope,		3			84	87	80	625
Totals,				46						255,802
Keystone Coal and Coke Co.,	Greensburg No. 2,	Slope,	Gaseous,	30	Compressed Air,	Pittsburg,	78	84	82	275,937
	Salem,	Drift,		27			78	94	69	289,401
Totals,				57						565,338
H. C. Frick Coke Co.,	Baggaley,	Slope,	Gaseous,	15	Compressed Air,	Pittsburg,	90	96	84	53,389
	Dorothy,	Shaft,		12			72	84	60	75,274
Totals,				27						128,663
Loyalhanna Coal and Coke Co.,	Pandora,	Shaft,	Gaseous,	5	Electricity,	Pittsburg,	72	84	60	60,000

Unity Coal Co.,	Carney,	Slope,	Non-gas.,	4	Compressed Air,	Upper Freeport-E,	42	48	36	18,548
E. A. Humphries Coal and Coke Co.,	Chester No. 2,	Drift,	Non-gas.,	2	Electricity,	Pittsburg,	72	84	60	11,100
Grand totals,				141						1,039,451

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Jamison Coal and Coke Co.						
Jamison No. 1,	Westmoreland,	W. W. Jamison,	Greensburg,	J. C. McClarran,	Luxor,	Penna., Alexandria Br.
Jamison No. 2,				S. C. Stahl,	Hannastown,	
Jamison No. 3,				J. C. Jamison,	Forbes Road,	
Jamison Nos. 4 and 5,				R. H. Jamison,	Crabtree,	
Jamison No. 6,				J. C. Jamison,	Forbes Road,	
Keystone Coal and Coke Co.						
Hempfield Nos. 1, 2 and 3,	Westmoreland,	A. D. Harman,	Greensburg,	A. W. White,	Greensburg,	Pennsylvania
Greensburg No. 1,				Henry Welty,	Greensburg,	Penna., S. W. Branch
Greensburg No. 2,				H. H. Null, Jr.,	Greensburg,	Penna., Radebaugh
Greensburg No. 3,				M. R. Morris,	Greensburg,	Pennsylvania
Salem,				Alex Coulter,	New Alexandria,	Penna., Alexandria Br.
Carbon,				Joseph D. Wentling,	Greensburg,	Penna., Radebaugh Br.
Seaboard,				Joseph D. Wentling,	Greensburg,	Local trade
Huron Nos. 1, 2 and 3,*				Alex. Coulter,	New Alexandria,	Penna., Alexandria Br.
Latrobe- Connellsville Coal and Coke Co.						
Saxman,	Westmoreland,	M. W. Saxman,	Latrobe,	E. M. Saxman,	Latrobe,	Pennsylvania
Superior No. 1,				E. M. Saxman,	Latrobe,	
Superior No. 2,				Andrew Smith,	Superior,	
Gilson,				Andrew Smith,	Superior,	
Derry Nos. 1 and 2,*				J. F. Chrow,	Bradenville,	
Millwood,				H. C. Cooney,	Millwood,	
H. C. Frick Coke Co.						
Baggaley,	Westmoreland,	W. H. Clingerman,	Scottdale,	T. L. Doorley,	Baggaley,	Penna., Unity Branch
Dorothy,				J. W. Devison,	Latrobe,	
Monastery,				A. F. Downing,	Latrobe,	
Loyalhanna Coal and Coke Co.						
Loyalhanna Nos. 1 and 2,	Westmoreland,	Arch Miller,	Loyalhanna,	Arch Miller,	Loyalhanna,	Pennsylvania
Pandora,						
Hostetter-Connellsville Coke Co.						
Whitney,	Westmoreland,	Charles R. McDonald,	Whitney,	Charles R. McDonald,	Whitney,	Penna., Unity Branch
Hostetter,						

*Idle.

Atlantic Crushed Coke Co. Atlantic No. 2, Atlantic Nos. 3 and 4,	Westmoreland,	H. C. Burket,	Greensburg,	J. R. Tussey, W. A. Swift,	Latrobe, New Derry,	Pennsylvania
Donohoe Coke Co. Donohoe,	Westmoreland,	John P. Donohoe,	Greensburg,	C. Rae King,	Crabtree,	Penna., Alexandria Br.
Ligonier Coal Co. Ligonier No. 2,	Westmoreland,	M. W. Saxman,	Latrobe,	William Gibson,	Derry Station,	Pennsylvania
Latrobe Coal Co. Latrobe Nos. 1 and 2,	Westmoreland,	John Lloyd,	Altoona,	D. W. Jones,	Latrobe,	Pennsylvania
Shenango Furnace Co. Wilpen,	Westmoreland,	C. A. Dyer,	Pittsburg,	A. K. Renwick,	Wilpen,	Ligonier Valley
Mount Pleasant Coke Co. Beatty,	Westmoreland,	W. A. Wilson,	Greensburg,	Clarence Deal,	Greensburg,	Penna., Unity Branch
Fort Ligonier Coal Co. Fort Ligonier No. 1,	Westmoreland,	James F. Peters,	Ligonier,	James F. Peters,	Ligonier,	Ligonier Valley
Ligonier Diamond Coal and Coke Co. Diamond,	Westmoreland,	Samuel Seger,	Ligonier,	Samuel Seger,	Ligonier,	Ligonier Valley
Whyel Coke Co. Ellen Nos. 1 and 2,	Westmoreland,	Harry Whyel,	Uniontown,	J. A. Abraham,	Whitney,	Penna., Unity Branch
Columbia Coal and Coke Co. Old Colony Nos. 1 and 2,	Westmoreland,	D. B. Blackburn,	Pittsburg,	George W. Gehres,	Ligonier,	Ligonier Valley
Unity Coal Co. Carney,	Westmoreland,	M. W. Saxman,	Latrobe,	Thomas Fish,	Latrobe,	Pennsylvania
Fort Palmer Coal and Coke Co. Fort Palmer No. 1,	Westmoreland,	James F. Peters,	Ligonier,	James F. Peters,	Ligonier,	Ligonier Valley
Unity-Connellsville Coke Co. Elizabeth,	Westmoreland,	J. F. Irwin,	Latrobe,	J. F. Irwin,	Latrobe,	Ligonier Valley
E. A. Humphries Coal and Coke Co. Chester No. 2,	Westmoreland,	E. A. Humphries,	Scottdale,	R. J. Humphries,	Latrobe,	Pennsylvania
South Fayette Coke Co. Shirey,	Westmoreland,	J. W. Abraham,	Uniontown,	William L. Jenkins,	Baggaley,	Penna., Unity Branch
Marietta-Connellsville Coke Co. Marietta,	Westmoreland,	S. R. Kelly,	Ligonier,	S. R. Kelly,	Ligonier,	Ligonier Valley

TABLE 1—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Northern Connellsville Coke Co. Marthabel,	Westmoreland,	Samuel Cummings,	Connellsville,	G. M. Davis,	Greensburg,	Penna., S. W. Branch
Darlington Coal Co. Houston,	Westmoreland,	H. C. Williams,	Ligonier,	H. C. Williams,	Ligonier,	Ligonier Valley
New Alexandria Coke Co. Richard,	Westmoreland,	R. H. Jamison,	Greensburg,	C. L. Clark,	New Alexandria,	Penna., Alexandria Br.
Bessemer Coke Co. Duquesne,*	Westmoreland,	R. L. Martin, Sr.,	Pittsburg,	J. C. Smith,	Bradenville,	Pennsylvania

*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Jamison Coal and Coke Co.																
Jamison No. 1,	Westmoreland	65,598	21,348	2,324	341,850	431,120	204,660	400	306	505	4	1	.....	.....	†	52
Jamison No. 2,	Westmoreland	169,788	27,250	4,757	500,175	701,970	300,490	516	304	715	5	9	.....	.....	†	46
Jamison No. 3,	Westmoreland	497,561	14,832	2,377	.....	514,770	.....	.....	284	432	3	4	.....	.....	†	36
Jamison No. 4,	Westmoreland	364,204	19,785	4,351	295,840	684,180	177,590	491	300	612	3	4	.....	.....	†	55
Jamison No. 5,	Westmoreland	117,213	355	57	.....	117,625	.....	.....	254	75	....	1	.....	.....	†	10
Jamison No. 6,	Westmoreland	156,488	1,641	411	.....	158,540	.....	.....	295	117	....	3	.....	.....	†	10
Totals,		1,370,852	85,211	14,277	1,137,865	2,608,205	682,740	1,407	.....	2,456	15	22	.....	.....	†	209
Keystone Coal and Coke Co.																
Hempfield No. 1,	Westmoreland	269,985	10,862	4,147	.....	284,994	.....	.....	256	290	1	....	†	†	.....	28
Hempfield No. 2,	Westmoreland	24,866	.....	8	.....	24,874	.....	.....	111	40	....	....	†	.....	.....	6
Hempfield No. 3,	Westmoreland	112,042	150	.....	.....	112,192	.....	.....	213	121	....	....	†	.....	.....	11
Greensburg No. 1,	Westmoreland	179,530	5,506	605	.....	185,641	.....	.....	257	166	1	2	†	†	.....	20
Greensburg No. 2,	Westmoreland	423,064	7,409	630	.....	431,103	.....	.....	246	355	2	6	22,200	1,680	.....	28
Greensburg No. 3,	Westmoreland	91,684	1,478	.....	.....	93,162	.....	.....	242	100	....	....	†	.....	.....	5
Salem,	Westmoreland	160,007	12,374	1,678	230,410	404,469	139,691	283	271	404	2	....	.....	5,450	34,870	45
Carbon,	Westmoreland	353,154	4,237	2,908	34,142	394,441	21,456	57	222	355	1	4	†	.....	.....	40
Seaboard,	Westmoreland	.....	9,516	7,828	.....	17,344	.....	.....	309	20	....	....	†	.....	.....	1
Huron Nos. 1, 2 and 3,*	Westmoreland	15,064	.....	56	.....	15,120	.....	.....	108	171	....	....	†	.....	.....	20
Totals,		1,629,396	51,532	17,860	264,552	1,963,340	161,147	340	.....	2,022	7	12	22,200	7,130	34,870	204

*Idle.
†No account kept.

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Latrobe-Connellsville Coal and Coke Co.																
Saxman,	Westmoreland	178,008	3,328	8	13,563	194,907	8,908	80	238	227	2	----	†	----	----	19
Superior No. 1,	Westmoreland	129,376	1,589	260	59,166	190,391	39,702	71	260	180	----	----	----	----	----	16
Superior No. 2,	Westmoreland	22,847	----	104	----	22,951	----	----	82	78	----	----	----	7,200	2,400	6
Gilson,	Westmoreland	54,126	4,652	920	167,851	227,549	115,044	208	286	319	1	1	----	14,400	4,800	32
Derry No. 1,	Westmoreland	948	6,132	1,687	268,534	277,301	179,249	293	291	375	2	3	†	----	----	32
Derry No. 2,*	Westmoreland	----	1,111	59	----	1,170	----	50	----	4	----	----	----	----	----	----
Millwood,	Westmoreland	113,310	6,191	335	----	119,836	----	----	232	141	2	----	----	----	----	14
Totals,		498,615	23,003	3,373	509,114	1,034,105	342,903	702	----	1,324	7	4	†	21,600	7,200	119
H. C. Frick Coke Co.																
Baggaley,	Westmoreland	----	9,379	8,807	346,587	364,773	231,058	397	298	418	3	2	----	500	25,500	63
Dorothy,	Westmoreland	21	7,674	1,146	187,466	196,307	124,977	230	288	256	1	3	----	----	24,300	25
Monastery,	Westmoreland	----	1,047	405	34,386	35,838	22,924	120	133	99	----	----	----	----	----	12
Totals,		21	18,100	10,358	568,439	596,918	378,959	747	----	773	4	5	----	500	49,800	100
Loyalhanna Coal and Coke Co.																
Loyalhanna Nos. 1 and 2,	Westmoreland	242,718	9,677	561	2,870	255,826	982	231	231	310	----	----	----	100	----	28
Pandora,	Westmoreland	193,533	6,006	1,376	----	200,915	----	----	235	159	1	3	39,000	3,000	----	11
Totals,		436,251	15,683	1,937	2,870	456,741	982	231	----	469	1	3	39,000	3,100	----	39

*Idle.
†No account kept.

Hostetter-Connellsville Coke Co.																
Whitney,	Westmoreland	.....	8,040	935	167,222	176,197	151,613	352	286	413	1	....	.....	3,000	10,000	30
Hostetter,	Westmoreland	.....	7,837	967	202,282	211,086	181,687	355	283	427	3	4	.....	8,000	10,000	34
Totals,		.....	15,877	1,902	369,504	387,283	333,300	707	.....	840	4	4	.....	11,000	20,000	64
Atlantic Crushed Coke Co.																
Atlantic No. 2,	Westmoreland	82,342	2,476	1,327	17,367	103,512	11,118	79	232	127	1	1	.....	.....	.....	9
Atlantic No. 3,	Westmoreland	126,888	3,234	510	48,186	178,818	36,689	120	254	211	1	5	19,750	8,500	1,000	16
Atlantic No. 4,	Westmoreland	19,677	689	.....	.....	20,366	.....	.....	267	40	....	....	4,000	2,500	.....	3
Totals,		228,907	6,399	1,837	65,553	302,696	47,807	199	.....	378	2	6	23,750	11,000	1,000	28
Donohoe Coke Co.																
Donohoe,	Westmoreland,	66,409	‡	98	143,160	209,667	89,475	180	242	237	1	....	.....	.....	†	5
Ligonier Coal Co.																
Ligonier No. 2,	Westmoreland,	136,905	2,334	1,422	38,529	179,190	26,733	50	263	206	2	....	.....	11,000	1,000	20
Latrobe Coal Co.																
Latrobe No. 1,	Westmoreland	10,126	4,944	4,361	108,579	128,010	91,504	136	297	171	....	....	.....	.....	.....	20
Latrobe No. 2,	Westmoreland	41,162	1,009	294	§46	42,511	.....	.....	186	59	....	....	400	100	.....	12
Totals,		51,288	5,953	4,655	108,625	170,521	91,504	136	.....	230	....	....	400	100	.....	32
Shenango Furnace Co.																
Wilpen,	Westmoreland,	13,575	2,435	869	114,425	131,304	75,188	167	217	148	....	1	.....	.....	.....	13
Mount Pleasant Coke Co.																
Beatty,	Westmoreland,	.....	1 232	1,536	112,630	115,398	75,149	182	216	182	....	1	.....	.....	14,000	26
Fort Ligonier Coal Co.																
Fort Ligonier No. 1,	Westmoreland,	85,020	5	50	.....	85,075	.....	.....	242	47	....	....	.....	.....	.....	6
Ligonier Diamond Coal and Coke Co.																
Diamond,	Westmoreland,	77,591	468	480	.....	78,539	.....	.....	216	55	....	....	.....	.....	.....	10
Whyel Coke Co.																
Ellen No. 1,	Westmoreland	.....	.....	1,000	39,859	40,859	26,573	40	270	37	....	....	.....	.....	.....	4
Ellen No. 2,	Westmoreland	.....	375	800	33,429	34,604	22,286	50	272	55	....	....	.....	.....	.....	9
Totals,		.....	375	1,800	73,288	75,463	48,859	90	.....	92	....	....	.....	.....	.....	13

†No account kept.
‡Burn coke ashes.
§Coke test.

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Columbia Coal and Coke Co.																
Old Colony No. 1,	Westmoreland	19,530	229	34	6,875	26,668	4,469	100	89	73	----	----	----	----	----	13
Old Colony No. 2,	Westmoreland	44,890	72	106	----	45,068	----	----	138	42	----	----	----	----	----	3
Totals,		64,420	301	140	6,875	71,736	4,469	100	----	115	----	----	----	----	----	16
Unity Coal Co.																
Carney,	Westmoreland,	64,028	3,862	352	----	68,242	----	----	214	110	----	----	14,344	1,079	667	1
Fort Palmer Coal and Coke Co.																
Fort Palmer No. 1,	Westmoreland,	6,315	912	144	39,912	47,283	26,517	79	292	100	1	----	----	----	----	7
Unity-Connellsville Coke Co.																
Elizabeth,	Westmoreland,	----	1,500	300	43,400	45,200	33,162	80	283	76	----	1	----	----	----	4
E. A. Humphries Coal and Coke Co.																
Chester No. 2,	Westmoreland,	----	340	430	22,089	22,859	17,144	50	222	55	----	----	----	4,440	----	5
South Fayette Coke Co.																
Shirey,	Westmoreland,	----	----	25	13,604	13,629	8,111	36	104	40	----	----	----	----	----	4
Marietta-Connellsville Coke Co.																
Marietta,	Westmoreland,	----	70	75	10,303	10,448	7,109	40	109	35	----	----	----	----	----	3

Northern Connellsville Coke Co. Marthabel,	Westmoreland,	----	----	----	7,579	7,579	5,053	40	104	37	----	----	----	----	----	3
Darlington Coal Co. Houston,	Westmoreland,,	6,459	7	453	----	6,919	----	----	261	14	----	----	----	----	----	2
New Alexandria Coke Co. Richard,	Westmoreland,-	----	----	----	----	†1,000	----	----	257	11	----	----	----	----	----	1
Bessemer Coke Co. Duquesne,*	Westmoreland,	----	----	----	----	----	----	244	----	----	----	----	----	----	----	----
Grand totals,	----	4,736,052	235,599	64,373	3,652,316	8,689,340	2,456,311	5,807	----	10,052	44	59	99,694	70,949	128,537	934

*Idle.
†Stored.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers: Cylindrical	Horse power	Tubular	Horse power	Total horse power	Locomotives: Steam	Air	Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
Jamison Coal and Coke Co.,	Westmoreland,			33	10,050	10,050	5	10		28	5,450	14	15,800	11,100	4	12
Keystone Coal and Coke Co.,		3	180	40	6,835	7,015	3	13	6	77	4,782	28	22,187	3,480	3	18
Latrobe-Connellsville Coal and Coke Co.,		1	80	26	2,690	2,770	3	1	4	36	2,452	22	12,040	8,580	6	2
H. C. Frick Coke Co.,		3	318	21	3,160	3,478	3			14	1,878	9	5,400	2,100	1	4
Loyalhanna Coal and Coke Co.,				17	1,675	1,675	1		3	16	750	10	6,800	1,200	3	
Hostetter-Connellsville Coke Co.,				26	3,100	3,100	4			8	1,850	8	12,800	3,200	1	3
Atlantic Crushed Coke Co.,				10	1,400	1,400			1	13	920	3	1,400	300	1	
Donohoe Coke Co.,				4	600	600			2	5	750	3	2,900	900	3	1
Ligonier Coal Co.,				3	300	300				3	100	2	2,320	380		1
Latrobe Coal Co.,				9	820	820	1			9	782	7	2,550	680		1
Shenango Furnace Co.,				3	280	280			1	2	250				2	
Mount Pleasant Coke Co.,				1	150	150				7	450	1	220	30		
Fort Ligonier Coal Co.,		1	15			15				1	15					
Ligonier Diamond Coal and Coke Co.,				2	110	110				3	110	1	110	50		
Whyel Coke Co.,		1	50	1	100	150			1	1	200				3	
Columbia Coal and Coke Co.,				1	100	100				1	10	2	224	92		
Unity Coal Co.,				3	350	350			1	2	233	1	500	300	1	1
Fort Palmer Coal and Coke Co.,				2	300	300				1	200				1	
Unity-Connellsville Coke Co.,				2	150	150			1	1	125	1	336	76		
E. A. Humphries Coal and Coke Co.,				1	150	150				1	50	1	200	200	1	
South Fayette Coke Co.,				1	20	20				1	50	1	20	20	1	
Marietta-Connellsville Coke Co.,				1	15	15										
Northern Connellsville Coke Co.,				1	50	50						1	60	50		
Darlington Coal Co.,				1	15	15				1	20					
Totals,		9	643	209	32,420	33,063	20	24	20	231	21,427	116	85,867	32,738	31	43

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Jamison Coal and Coke Co.,	Westmoreland,	6	1	13	1,152	*24	91	----	144	11	68	164	1,674	4	6	68	49	481	8	166	782	2,456
Keystone Coal and Coke Co.,		10	3	17	953	31	236	31	149	8	108	3	1,549	8	7	40	56	129	10	223	473	2,022
Latrobe-Connellsville Coal and Coke Co.,		6	1	9	798	----	----	----	87	21	29	32	983	4	5	17	31	209	5	70	341	1,324
H. C. Frick Coke Co.,		3	2	6	188	18	91	18	39	11	55	48	479	3	6	14	21	157	4	89	294	773
Loyalhanna Coal and Coke Co.,		2	----	3	272	*1	----	*1	28	10	19	50	386	1	3	10	14	4	4	47	83	469
Hostetter-Connellsville Coke Co.,		2	2	7	331	----	----	----	34	6	72	27	481	2	2	14	16	267	4	54	359	840
Atlantic Crushed Coke Co.,		3	1	2	245	----	----	----	18	5	12	18	304	3	2	6	9	35	3	16	74	378
Donohoe Coke Co.,		1	----	1	112	----	----	----	5	------	5	2	126	1	2	5	8	68	1	26	111	237
Ligonier Coal Co.,		1	----	2	140	----	----	----	17	4	6	4	174	1	----	2	3	17	1	8	32	206
Latrobe Coal Co.,		2	----	1	120	----	----	----	13	------	11	------	147	2	1	5	9	44	1	21	83	230
Shenango Furnace Co.,		1	1	----	70	----	----	----	7	4	4	------	87	1	2	3	4	40	1	10	61	148
Mount Pleasant Coke Co.,		1	----	----	80	----	----	----	10	2	5	2	100	1	1	2	2	70	1	5	82	182
Fort Ligonier Coal Co.		1	----	----	30	----	----	----	5	1	5	------	42	1	----	----	----	------	1	3	5	47
Ligonier Diamond Coal and Coke Co.,		1	----	----	42	----	----	----	4	1	1	------	49	1	----	1	1	------	1	2	6	55
Whyel Coke Co.,		2	1	----	39	----	----	----	5	------	2	------	49	2	----	2	1	36	2	----	43	92
Columbia Coal and Coke Co.,		2	----	----	72	----	----	----	8	------	------	4	86	1	----	1	1	14	1	11	29	115
Unity Coal Co.,		1	----	----	79	*8	----	*8	2	1	2	------	101	1	----	1	2	------	1	4	9	110
Fort Palmer Coal and Coke Co.,		1	----	----	40	----	----	----	3	1	1	------	46	2	1	5	3	34	1	8	54	100
Unity-Connellsville Coke Co.,		1	----	----	31	----	----	----	3	1	3	------	39	1	1	2	3	26	----	4	37	76
E. A. Humphries Coal and Coke Co.,		1	----	----	23	2	1	2	3	------	2	1	35	1	2	2	2	10	----	3	20	55
South Fayette Coke Co.,		1	----	----	15	----	----	----	3	------	4	------	23	1	----	1	1	14	----	----	17	40
Marietta-Connellsville Coke Co.,		1	----	----	15	----	----	----	2	------	------	2	20	1	----	1	1	10	----	2	15	35
Northern Connellsville Coke Co.,		1	----	----	23	----	----	----	1	------	------	------	25	1	----	1	----	10	----	----	12	37
Darlington Coal Co.,		1	----	----	9	----	----	----	1	------	2	------	13	1	----	----	----	------	----	----	1	14
New Alexandria Coke Co.,		1	----	----	6	----	----	----	1	------	------	------	8	1	----	2	----	------	----	----	3	11
Totals,		53	12	61	4,885	84	419	60	592	87	416	357	7,026	46	41	205	237	1,675	50	772	3,026	10,052

*Cut and load their own coal.

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Jamison Coal and Coke Co.,	Westmoreland,	26	20	25	22	21	22	24	26	26	26	26	26	290
Keystone Coal and Coke Co.,		18	13	17	14	14	15	21	23	20	23	22	24	224
Latrobe-Connellsville Coal and Coke Co.,		25	20	20	15	13	15	17	18	18	21	24	26	232
H. C. Frick Coke Co.,		16	15	16	14	15	16	18	26	26	26	26	26	240
Loyalhanna Coal and Coke Co.,		22	20	22	19	15	17	18	15	18	22	22	23	233
Hostetter-Connellsville Coke Co.,		23	20	22	22	22	21	25	26	26	26	26	26	285
Atlantic Crushed Coke Co.,		22	21	21	20	16	18	19	20	20	24	25	25	251
Donohoe Coke Co.,		17	16	20	20	21	20	21	18	19	20	25	25	242
Ligonier Coal Co.,		26	20	21	19	16	19	22	25	23	22	24	26	263
Latrobe Coal Co.,		25	19	17	14	14	16	16	24	21	25	25	26	242
Shenango Furnace Co.,		6	9	16	16	18	16	20	19	19	26	26	26	217
Mount Pleasant Coke Co.,		12	3	------	------	19	26	26	26	26	26	26	26	216
Fort Ligonier Coal Co.,		21	15	16	15	11	20	23	19	24	26	26	26	242
Ligonier Diamond Coal and Coke Co.,		20	23	22	23	14	7	10	12	21	20	19	25	216
Whyel Coke Co.,		19	18	19	21	19	23	23	26	26	26	26	25	271
Columbia Coal and Coke Co.,		15	10	8	2	3	4	7	6	11	10	16	22	114
Unity Coal Co.,		20	18	25	14	9	13	17	19	19	20	20	20	214
Fort Palmer Coal and Coke Co.,		24	20	25	22	23	26	26	23	26	26	26	25	292
Unity -Connellsville Coke Co.,		25	24	24	16	19	24	26	26	26	25	26	22	283
E. A. Humphries Coal and Coke Co.,		23	14	22	19	21	14	22	------	16	26	22	23	222
South Fayette Coke Co.,		13	------	------	------	------	------	------	------	20	24	26	21	104
Marietta-Connellsville Coke Co.,		17	------	------	------	------	------	------	------	14	26	26	26	109
Northern Connellsville Coke Co.,		12	12	12	------	------	------	------	------	------	26	25	17	104
Darlington Coal Co.,		24	22	22	24	22	20	18	16	18	24	25	26	261
New Alexandria Coke Co.,		------	10	26	26	25	25	23	26	25	24	25	22	257

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 2	John Broda,	Polish,	Loader,	20	S.			Jamison No. 2,	Westmoreland,	Instantly killed by fall of slate at face of room.
21	Antonia Wysokinski,	Polish,	Miner,	38	M.	1	2	Jamison No. 3,		Fatally injured. Struck by derailed car as trip passed him on entry.
	George Buda,	Austrian,	Miner,	50	M.	1	4	Millwood,		Fatally injured by fall of roof at face of pillar.
25	Jacob Oberly,	Slavonian,	Miner,	32	M.	1	5	Hostetter,		Fatally injured by fall of roof at face of pillar.
Feb. 4	Andrew Knop,	Slavonian,	Miner,	25	S.			Greensburg No. 1,		Fatally injured by fall of slate at face of entry.
12	Michael Cartich,	Austrian,	Miner,	31	M.	1	1	Jamison No. 3,		Fatally injured by fall of slate at face of pillar.
23	Frank Shuline,	Austrian,	Miner,	42	S.			Hostetter,		Instantly killed by fall of slate at face of room.
Mar. 2	Mathew Costerick,	Austrian,	Miner,	25	S.			Jamison No. 2,		Fatally injured by fall of slate at face of room.
4	Charles C. Hunter,	American,	Miner,	35	M.	1		Derry No. 1,		Instantly killed by fall of roof at face of pillar.
6	Stephen Yancey,	Slavonian,	Miner,	49	M.	1	1	Atlantic No. 2,		Instantly killed by fall of roof at face of pillar.
8	John Omarza,	Austrian,	Miner,	46	S.			Greensburg No. 2,		Fatally injured by fall of coal on pillar.
12	Bartel Monick,	Italian,	Company man	19	S.			Jamison No. 1,		Fatally injured. Run over by larries and locomotive on coke ovens.
	Peter Zanette,	Italian,	Miner,	22	S.			Pandora,		Fatally injured. Caught between car and coal pillar near shaft bottom.
19	Gjure Holjevac,	Austrian,	Miner,	40	M.	1	3	Jamison No. 2,		Killed by fall of slate at face of pillar.
23	Michael Gertish,	Austrian,	Miner,	31	M.	1	2	Whitney,		Instantly killed by fall of roof in pillar work.
26	George Suckey,	Russian,	Miner,	35	M.	1	1	Millwood,		Fatally injured by fall of slate in room.
Apr. 12	John J. Watson,	American,	Miner,	33	M.	1	9	Carbon,		Fatally injured by fall of roof at face of pillar.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
April	18	Frank Horna,	Russian,	Miner,	21	S.			Jamison No. 4,		Fatally injured by fall of coal at face of room.
	20	John Kutzen,	Russian,	Miner,	24	M.	1	1	Jamison No. 4,		Fatally injured by fall of slate at face of room.
May	15	John Bobyak,	Austrian,	Driver,	20	S.			Jamison No. 1,		Instantly killed. Caught between car and coal pillar in room.
	17	Antonia Amselmo,	Italian,	Miner,	35	S.			Saxman,		Fatally injured by fall of slate in room.
	23	Steve Boreo,	Italian,	Miner,	24	S.			Ligonier No. 2,		Instantly killed by fall of slate at face of pillar.
June	5	John Keckes,	Slavonian,	Miner,	20	S.			Jamison No. 4,		Instantly killed by fall of slate at face of room.
	18	Thomas Andreycic,	Austrian,	Miner,	17	S.			Baggaley,		Instantly killed. Caught between empty cars on which he was riding that became derailed on entry.
	29	Lawrence Yaney,	American,	Company man	17	S.			Fort Palmer No. 1.		Killed. Fell on coal conveyors and carried around sprocket wheel in coal crusher. Outside.
	30	William Monich,	American,	Miner,	25	M.	1	1	Hempfield No. 1,	Westmoreland,	Instantly killed by fall of coal at face of pillar.
July	14	Paul Antle,	Slavonian,	Miner,	40	S.			Jamison No. 2,		Fatally injured by fall of coal at face of room.
	15	Joseph Colletta,	Italian,	Miner,	20	S.			Saxman,		Instantly killed by fall of slate at face of room.
	16	George Colson,	Slavonian,	Company man	18	S.			Ligonier No. 2,		Fatally injured by falling into shaft.
	28	Steve Cadella,	Italian,	Miner,	21	S.			Jamison No. 1,		Instantly killed by fall of slate at face of pillar.
Aug.	7	Philip Dimsick,	Polish,	Loader,	31	M.	1	2	Salem,		Fatally injured by fall of slate at face of room.
	17	Martin Markes,	Austrian,	Miner,	39	M.	1		Baggaley,		Instantly killed by fall of roof at face of pillar.
Sept.	3	Anton Zazytney,	Polish,	Miner,	31	S.			Dorothy,		Instantly killed by fall of slate at face of room.

Sept.	13	Anton Cari,	Italian,	Miner,	32	M.	1	1	Gilson,		Instantly killed. Struck by loaded trip of cars on main haulage road.
	30	Walter D. Gilchrist,	American,	Engineer,	20	S.	----	----	Greensburg No. 2,		Instantly killed. Caught between compressed air locomotive and coal pillar.
Oct.	15	Anton Koshnisky,	Polish,	Miner,	50	M.	1	----	Donohoe,		Fatally injured by fall of slate at face of room.
	22	Vincent Pearce,	American,	Company man	18	S.	----	----	Jamison No. 1,		Instantly killed by falling in coal jig in coal washer. Outside.
Nov.	2	Bernard Daugherty,	American,	Company man	21	S.	----	----	Hostetter,		Fatally injured by fall of slate on entry.
	9	Curtis Bailey,	American,	Driver,	24	S.	----	----	Jamison No. 3,		Fatally injured. Caught between car and coal pillar on entry.
	23	Andrew Kowalcik,	Polish,	Miner,	24	M.	1	1	Derry No. 1,	Westmoreland,	Instantly killed by fall of roof at face of pillar.
Dec.	5	John Augustine,	Polish,	Company man	30	M.	1	1	Jamison No. 2,		Killed by fall of slate while attempting to take it down at shaft bottom.
	9	Joseph Ferenchock,	Slavonian,	Miner,	28	M.	1	2	Salem,		Fatally injured by fall of coal at face of pillar.
	19	William Akins,	American,	Miner,	25	M.	1	----	Atlantic No. 3,		Fatally injured by fall of slate at the intersection of two entries while mining the coal from side to make room for road switch.
	21	Howard Hancock,	American,	Company man	43	M.	1	2	Baggaley,		Fatally injured by fall of slate while taking it down on entry.

TABLE 5—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	5	John Collett,	Italian,	Miner,	20	S.	Derry No. 1,		Foot crushed by fall of roof at face of pillar.
		Cyrus Davis,	American,	Coupler,	16	S.	Carbon,		Foot crushed, necessitating the amputation of three toes. Caught between cars at bottom of slope.
	8	Ewan Hirsich,	Austrian,	Miner,	27	M.	Hostetter,		Leg broken by fall of roof at face of pillar.
	9	Andrew Americo,	Italian,	Miner,	33	M.	Jamison No. 5,		Leg broken by fall of coal at face of pillar.
	12	Fred Kreahm,	German,	Miner,	30	S.	Jamison No. 6,		Ribs fractured by fall of slate at face of room.
	13	J. H. Bennet,	American,	Loader,	36	M.	Greensburg No. 2,		Leg broken by fall of slate in room.
	25	Oscar Rohrbaugh,	American,	Miner,	22	S.	Carbon,		Leg broken and body cut by fall of slate at face of room.
Feb.	1	Alex. Martislnak,	Slavonian,	Miner,	28	S.	Jamison No. 6,		Leg broken by fall of roof at face of pillar.
		George Corrins,	Austrian,	Miner,	30	S.	Greensburg No. 2,	Westmoreland,	Back broken by fall of slate in pillar work.
	3	John Stuppa,	Slavonian,	Miner,	53	M.	Baggaley,		Two ribs broken by fall of slate at face of pillar.
	6	Martin Cuhaca,	Polish,	Driver,	26	S.	Jamison No. 3,		Arm broken. Kicked by a mule on entry.
	18	Joseph Catolana,	Italian,	Trip runner,	24	S.	Elizabeth,		Back injured. Struck by runaway cars on slope.
	26	Adam Nowe,	American,	Miner,	36	S.	Derry No. 1,		Arm broken by fall of slate in pillar work.
Mar.	4	Charles Shank,	American,	Company man,	22	S.	Atlantic No. 3,		Foot crushed. Caught between cross-bar and gland of mine pump.
	15	Bonline Botts,	Italian,	Miner,	47	S.	Gilson,		Back and hips bruised by fall of slate at face of room.
	23	Torrance Lurdicorkey,	Polish,	Miner,	46	M.	Jamison No. 4,		Both legs broken by fall of slate in room.
		Paul Zretock,	Slavonian,	Scraper,	56	M.	Dorothy,		Injured internally. Struck by car on entry.

Mar.	27	Steve Rabjack,	Slavonian,	Miner,	35	M.	Atlantic No. 2,		Leg broken by fall of roof on pillar.
	29	Frank Rudack,	Polish,	Loader,	33	M.	Jamison No. 2,		Body injured by fall of slate in room.
Apr.	2	Andrew Wallace,	Scotch,	Miner,	33	S.	Pandora,		Four ribs broken and back injured by fall of coal on pillar.
	5	Ladis Lesmick,	Polish,	Driver,	28	M.	Jamison No. 2,		Leg broken. Run over by car in room.
	6	George Duchek,	Austrian,	Miner,	18	S.	Jamison No. 1,		Leg broken by fall of slate in room.
May	3	Michael Kessel,	Hungarian,	Miner,	38	M.	Atlantic No. 3,		Three ribs broken by fall of slate in room.
		John Yanoshik,	Italian,	Miner,	40	S.	Greensburg No. 2,		Leg broken by fall of coal in room.
	6	Adam Perter,	Welsh,	Miner,	35	M.	Jamison No. 2,		Leg fractured by fall of slate in room.
		Frank Bailey,	Polish,	Loader,	29	M.	Jamison No. 2,		Injured about body by fall of slate in room.
	10	Andrew Vaholy,	Slavonian,	Miner,	35	M.	Dorothy,		Foot injured by fall of slate in entry.
June	3	Valind Chain,	Slavonian,	Company man,	32	M.	Hostetter,		Knee bruised by fall of slate on entry.
	12	Frank Miller,	Hungarian,	Miner,	38	M.	Jamison No. 6,		Leg fractured by fall of slate at face of entry.
	22	Thomas Snedden,	American,	Driver,	22	M.	Greensburg No. 1,		Arm broken. Caught between car and post in room.
July	7	George Wowkson,	Austrian,	Miner,	27	S.	Jamison No. 3,		Face burned by a premature blast at face of room.
	10	John Sander,	Slavonian,	Miner,	43	M.	Jamison No. 4,		Leg broken by fall of coal in room.
	24	F. P. Shoenfelter,	American,	Miner,	49	M.	Beatty,		Burned by an explosion of coal special in carpenter shop. Outside.
	26	Alex Hamilton,	Scotch,	Miner,	65	M.	Greensburg No. 1,		Leg broken and body bruised. Struck by trip of cars on main haulage road.
Aug.	17	Emory Zacobison,	Slavonian,	Scraper,	27	M.	Jamison No. 2,	Westmoreland,	Hips crushed by fall of coal at face of room.
	26	Theodore Wilscoki,	Austrian,	Cutter,	33	M.	Greensburg No. 2,		Back and leg broken by fall of slate at face of entry.
	31	Michael Skalnik,	Slavonian,	Miner,	37	M.	Jamison No. 2,		Foot crushed by fall of slate at face of room. Foot amputated.
Sept.	9	John Matson,	Finnish,	Miner,	38	M.	Carbon,		Leg broken by fall of slate in pillar work.
	14	John Kinsner,	Austrian,	Miner,	26	S.	Hostetter,		Collar bone broken by fall of slate at face of entry.
		Robert Hall,	English,	Shot-firer,	37	M.	Jamison No. 3,		Arms and face cut by flying coal from blast. Caused by the careless use of battery.
	17	Thompson Brown,	American,	Trip runner,	25	S.	Jamison No. 4,		Leg broken. Caught between compressed air locomotive and cars on side track.
	21	Frank Obutt,	Austrian,	Miner,	49	M.	Baggaley,		Leg broken in two places by fall of slate at face of entry.
	24	Emery Sayo,	Hungarian,	Miner,	35	M.	Atlantic No. 3,		Arm broken. Struck by trip of cars on main haulage road.
		John Argyelan,	Hungarian,	Miner,	38	M.			Arm broken. Struck by trip of cars on main haulage road.
Oct.	2	Samuel Brondi,	Slavonian,	Miner,	26	M.	Pandora,		Foot crushed by fall of coal at face of pillar.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Oct. 4	Adam Pobacheck,	Polish,	Driver,	26	M.	Jamison No. 2,		Collar bone broken. Struck by cars on entry.
	Andrew Krusper,	Polish,	Driver,	25	S.	Jamison No. 2,		Wrist broken. Caught between cars on entry.
18	John Rigal,	Polish,	Miner,	23	M.	Jamison No. 4,		Both legs broken by fall of slate at face of room.
	Charles Ewing,	American,	Driver,	23	M.	Dorothy,		Crushed about body. Caught between mule and coal pillar.
Nov. 13	Attell Mallspin,	Italian,	Miner,	40	M.	Wilpen,		Head cut and back bruised by fall of slate in cut-through.
22	Michael Robusky,	Slavonian,	Engineer,	34	M.	Jamison No. 3,		Shoulder blade broken. Caught between compressed air locomotive and mine car on entry.
27	Michael Zakaski,	Slavonian,	Miner,	40	M.	Derry No. 1,		Back and shoulder bruised by fall of slate at face of pillar.
	Bessil Haycock,	American,	Company man,	18	S.	Atlantic No. 3,	Westmoreland,	Head injured. Caught between mine cars. Outside.
Dec. 9	Andrew Pundi,	American,	Runner,	22	S.	Hostetter,		Arm broken while coupling cars in motion on main haulage road.
10	Joseph Kliez,	Italian,	Miner,	38	M.	Jamison No. 2,		Leg fractured by fall of slate at face of room.
15	John Mandolich,	Austrian,	Loader,	28	M.	Greensburg No. 2,		Leg broken by fall of slate at face of room.
16	O. S. Sherbondy,	American,	Miner,	26	M.	Carbon,		Hip fractured by fall of coal at face of room.
17	Thomas McDaniels,	Irish,	Miner,	28	S.	Pandora,		Arm broken by fall of slate at face of pillar.
18	L. E. Johnson,	American,	Runner,	26	M	Greensburg No. 2,		Nose broken and leg injured. Caught between compressed air locomotive and coal pillar on entry.

CONDITION OF MINES

JAMISON COAL AND COKE COMPANY

Jamison Nos. 1, 2, 3, 4, 5 and 6.—Conditions good, except as follows: The ventilation should be improved in No. 2 mine at the face of a portion of the workings on Nos. 2 north, and 3 face east entries.

Coal dust is found in some parts of Nos. 1, 2 and 3, particularly at high and dry points on the roadways. It is kept saturated by means of water cars, and is removed from the mines.

A fire was discovered about 2.45 P. M. on November 1st, near the bottom of No. 2 shaft, which destroyed several sets of double timbers and the mine cars in the immediate vicinity. The fire was supposed to have started in a small room in which oil was kept for the oiling of the mine cars about sixty feet from the shaft bottom.

Hoisting coal at the mine had ceased at noon, and the majority of the men were out of the mine when the fire was discovered.

The fan was at once reversed making the hoisting shaft the return, and the second opening or fan shaft an inlet, thus providing means of escape for the men in the mine.

A four-inch pipe line was laid from a reservoir on the surface to the top of the shaft. Later a three-inch line was also laid, and three lines of hose were run from the pumps in the mine to the fire, and about 12 o'clock midnight it was well under control. Five days were required to extinguish the fire and remove the debris before the mine resumed operations. The fire was supposed to have started from an open lamp.

KEYSTONE COAL AND COKE COMPANY

Hempfield Nos. 1, 2 and 3; Greensburg Nos. 1, 2 and 3, Salem, Carbon, Seaboard, Huron Nos. 1, 2 and 3.—Conditions good except as follows: Better ventilation was needed at the working faces in a portion of the room and pillar work in some parts of Hempfield No. 1.

The dry sections of Greensburg No. 2 are now being piped with one and one-half inch pipe, with hose connections every one hundred feet for the purpose of saturating the dust, which is now being watered by means of a water car. The dust is loaded into cars and removed from the mine after being saturated.

LATROBE-CONNELLSVILLE COAL AND COKE COMPANY

Saxman, Superior Nos. 1 and 2, Gilson, Derry Nos. 1 and 2 and Millwood.—Ventilation, drainage and other conditions good except as follows: The ventilation at the working faces in a portion of the dip workings in Derry No. 1 should be improved. Derry No. 2 was idle. More shelter holes are needed on A entry in the Millwood mine.

H. C. FRICK COKE COMPANY

Baggaley, Dorothy and Monastery.—Ventilation, drainage and other conditions good.

LOYALHANNA COAL AND COKE COMPANY

Loyalhanna Nos. 1 and 2 and Pandora.—In good condition.

HOSTETTER-CONNELLSVILLE COKE COMPANY

Whitney and Hostetter.—In good condition.

ATLANTIC CRUSHED COKE COMPANY

Atlantic Nos. 2, 3 and 4.—In good condition.

DONOHOE COKE COMPANY

Donohoe.—In good condition, except the ventilation in the idle workings which should be improved. This mine in the past produced considerable coal dust in the rise workings, which was controlled by means of a water car. These workings have been worked out and abandoned. The present workings are now very wet.

LIGONIER COAL COMPANY

Ligonier No. 2.—In good condition.

LATROBE COAL COMPANY

Latrobe Nos. 1 and 2.—In good condition, except the ventilation in Nos. 21 and 22 entries in No. 1 mine which should be improved.

SHENANGO FURNACE COMPANY

Wilpen.—In good condition except a part of the main entry where shelter holes have not been provided.

MOUNT PLEASANT COKE COMPANY

Beatty.—In good condition. The coal dust in this mine is confined to the high and dry points along the roadways, and is watered by means of a truck car on which barrels of water are placed and hose connected after which it is loaded into cars and removed from the mine.

FORT LIGONIER COAL COMPANY

Fort Ligonier No. 1.—In good condition.

LIGONIER DIAMOND COAL AND COKE COMPANY

Diamond.—In good condition.

WHYEL COKE COMPANY

Ellen Nos. 1 and 2.—In good condition.

COLUMBIA COAL AND COKE COMPANY

Old Colony Nos. 1 and 2.—Conditions good except the ventilation at face of workings in No. 1 and the idle workings in No. 2 which needed improvement.

UNITY COAL COMPANY

Carney.—In good condition.

FORT PALMER COAL AND COKE COMPANY

Fort Palmer No. 1.—In good condition.

UNITY-CONNELLSVILLE COKE COMPANY

Elizabeth.—In fair condition.

E. A. HUMPHRIES COAL AND COKE COMPANY

Chester No. 2.—In fair condition.

SOUTH FAYETTE COKE COMPANY

Shirey.—In good condition.

MARIETTA-CONNELLSVILLE COKE COMPANY

Marietta.—In good condition.

NORTHERN CONNELLSVILLE COKE COMPANY

Marthabel.—In good condition.

DARLINGTON COAL COMPANY

Houston.—In fair condition.

NEW ALEXANDRIA COKE COMPANY

Richard.—In good condition.

BESSEMER COKE COMPANY

Duquesne.—Idle the entire year.

IMPROVEMENTS

JAMISON COAL AND COKE COMPANY

Jamison No. 3.—A new lamp house of tile and concrete has been erected.

Jamison No. 4.—One hundred and eighty-six new coke ovens have been built.

KEYSTONE COAL AND COKE COMPANY

Hempfield No. 1.—Three brick and concrete overcasts and 104 brick stoppings constructed; one motor generator set and tile building for same; one air compressor installed.

Hempfield No. 2.—The furnace shaft has been lined with brick.

Hempfield No. 3.—Sixty-five brick stoppings were built.

Greensburg No. 1.—One permanent overcast was constructed, and 100 Wolf safety lamps purchased.

Greensburg No. 2.—Four overcasts and twelve stoppings all of a permanent character have been constructed. The outside improvements consist of a lamp house of brick and concrete.

Greensburg No. 3.—One brick and one concrete overcast and thirty stoppings of brick and concrete have been built.

Salem.—Three overcasts and fifty stoppings all of concrete have been built. One thousand four hundred feet of drain, a portion of which is the tunnel system to secure drainage from a part of this mine, has been completed. Fifty Wolf safety lamps were purchased. The outside improvements consist of 14 dwelling houses. One three hundred and fifty million gallon reservoir is being constructed, which when completed will furnish a supply of water for this and the Huron mines. One American-LaFrance Chemical Fire Engine has been purchased.

Carbon.—A lamp house of brick and concrete has been built.

Huron No. 2.—Forty machine drawn coke ovens have been completed, and 60 more are under construction. One boiler house and one power house of brick, one washer building and coal bin of concrete are being built.

H. C. FRICK COKE COMPANY

Baggaley.—Coal cutting equipment, consisting of 15 puncher type mining machines, one 2-stage 1500 cubic foot compressor complete, with pipe lines, etc., was installed.

Toward the end of the year, the installation of a compressed air mine haulage was started, but not entirely completed. The equipment consists of a 4-stage duplex air compressor, the necessary high pressure air lines, two compressed air locomotives,—one 16 tons and the other 10 tons in weight. Mine tracks for this haulage were also completed, with proper weight of rail and road bed.

Dorothy.—Ten permanent stoppings, of fire-proof construction, were built during the year.

HOSTETTER-CONNELLSVILLE COKE COMPANY

Whitney.—Installed one 24 x 42 inch haulage engine with 5-foot drum. Six 5-foot cast iron bull wheels. Six Ingersoll-Rand puncher mining machines. Four 150 H. P. Erie City boilers. One 100 H. P. tubular boiler at Nine-Mile run, for pumping water to mine reservoir.

Machine air lines: 2,500 feet of 6-inch pipe, 4,600 feet of 5-inch pipe, 5,700 feet of 3-inch pipe, 3,250 feet of 2-inch pipe and 2,500 feet of 1¼ inch; 2,894 feet of 7-inch steam line from boilers to bore hole, 500 feet of 6-inch from bottom of bore hole to haulage engine at 6 face entry left.

Completed inside: One 39 foot x 40 foot engine room with 24 inch x 12 foot stone wall, roof supported by 18 inch steel trusses.

One-half (250 feet) slope haulage side track, roof secured with 55 x 20 foot 18 inch I beams. Three hundred and fifty feet 2 x 3 foot ditch on 11 left face entry. Five permanent overcasts. Twenty-five 9 inch permanent brick stoppings and twenty-five 13 inch permanent brick stoppings.

Leveling local swamp: Two thousand four hundred and forty-five feet of bottom removed and 90,000 lineal feet of roof taken down.

Three water wells of the following depth, 454, 215, and 205 feet each, which supply water for fire protection, watering ovens and general use.

Seven thousand feet 40 lb. iron mine track.

Hostetter.—Installed as follows: One air shaft, 12 feet x 24 feet x 359 feet. One brick engine house 33 feet x 46 feet. One pair 16 inch x 24 inch Lepley hoisting engines. One brick air compressor building 34 feet x 44 feet. Two 17 x 27 x 26 x 16¼ x 24 inch Ingersoll-Rand air compressors. One air receiver 5 feet x 18 feet.

One hundred and sixty-one feet of 4-inch C. I. pipe line. Eighty feet of 5 inch, 180 of 4 inch, 100 feet of 1½ inch, 269 feet of 1 inch wrought pipe line running from bore hole.

One 40 x 100 foot brick boiler house, roofing 3-ply paper. Eight 150 H. P. H. T. Erie City boilers. One Lafayette feed pump 12 x 6 x 18 inches. One 20 x 32 inch steel water tank, capacity 120,000 gallons. Three double dwellings of 6 rooms. One lamp and oil house 12 x 24 feet. Three bore holes 20 inches in diameter by 16 inch castings, 325 feet deep.

One shaft 12 x 24 feet x 358 feet deep. One head frame. One cage. One steel rope. Two bull wheels. One 12 x 12 x 12 Westinghouse air compressor. One well for water storage, capacity 100,000 gallons, 215 feet 8 inches deep. Eight Ingersoll-Rand Sargent mine drilling machines. One pump room, brick arch, 18 feet x 170 feet. One 9 x 170 foot sump. One 12 inch steel steam line from boilers to pumps 560 feet. One 12 inch exhause steel steam line 560 feet running from pump to surface. One 4 inch W. I. water line 600 feet running from tank to houses. One thousand seven hundred feet of 24 inch sewerage line. One thousand feet of 8 inch steel air line from shaft to 12 face entry left.

One 10 x 12 foot frame yard boss shanty. One engine (dinkey) shed 18 feet x 24 feet.

Sixteen 9 inch and twenty-six 12 inch brick stoppings. Six permanent overcasts. One 4 inch x 4 inch 3,000 foot ditch. One sump 9 feet 5 inches x 10 feet x 170 inches. Two sumps from main sump to pumps each 48 feet long by 4 feet 5 inches x 10 inches. Arch in air shaft 13 foot wall by 100 feet long. One 6-inch steel air line 3,400 feet long from shaft to Whitney air line. One 5-inch steel air line 1,000 feet to slope. One 3 inch steel air line 600 feet long to 10 right face entry. One thousand four hundred feet of 3-inch steel air line to 11 left face entry. Two thousand five hundred feet of 1¼ inch steel air line.

One 20 x 40 x 16 x 48 Jeans compound pump. One 26 x 14 x 28 Yough pump. One 24 x 14 x 48 Lafayette pump. One 26 x 14 x 46 Lafayette pump.

ATLANTIC CRUSHED COKE COMPANY

Atlantic No. 3.—A lamp house of tile and concrete has been built and 50 Wolf and 15 Clanny safety lamps provided.

Atlantic No. 4.—A Clifford steel fan 3½ x 9 feet was installed, and all stoppings in the mine have been built of concrete.

DONOHOE COKE COMPANY

Donohoe.—Fifty Wolf safety lamps were purchased for use in pillar work. Seven overcasts of brick and steel were constructed.

An electric power rail (75 and 80 R. R. Iron) has been laid the entire length of the main airway. This rail is laid on brick piers two feet high, and four feet from the coal, spaced fifteen feet apart with a plate glass insulator between the rail and each pier. The rail is practically safe from injury or disturbance due to roof falls, and from fire due to its position. From this rail at regular distances feeders of 4.0 lead covered cables are connected to the perforated third rail which furnishes power for the haulage motors. The main airway in which the rail is laid is inspected daily and a report of same recorded in the Fire Boss report book; likewise inspection is made daily of all electric connections and reported.

The haulage entries are now being whitewashed their entire length.

The outside improvements consist of a complete water system for fire protection and house service.

LATROBE COAL COMPANY

Latrobe No. 1.—A new boiler house was built replacing the one destroyed by fire in February.

UNITY COAL COMPANY

Carney.—An additional Erie City 150 H. P. boiler was installed, and an addition built to the present boiler house to accommodate it.

The underground improvements consist of two additional mine pumps.

FORT PALMER COAL AND COKE COMPANY

Fort Palmer No. 1.—A new washing plant of the latest jig type has been installed.

UNITY-CONNELLSVILLE COKE COMPANY

An air shaft 8 feet x 8 feet x 17 feet has been completed, and a 6½ x 20 foot ventilating fan is being constructed.

Prosecutions for Violations of the Mining Laws

November 3rd. William Bostick blasted coal without undermining in the Greensburg No. 2 mine. He plead guilty and was sentenced to pay five dollars fine and costs.

December 8th. Frank Magmaghi blasted coal without properly undermining it; also passed danger signal at the entrance to his place of work in the Greensburg No. 2 mine. He plead guilty and was sentenced to pay ten dollars fine and costs.

May 27th. John Dudor took pipe and tobacco into Dorothy mine where locked safety lamps were used. Defendant is a fugitive.

February 1st. Charles Croul and John Kanuff fired a blast in a part of the Donohoe mine in which locked safety lamps were used, without the direction and consent of the Mine Foreman. Kanuff was arrested, plead guilty and was sentenced to pay a fine of twenty dollars and costs. Croul is a fugitive.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in K. G. E. Hall, Greensburg, April 6, 7, 8 and 9.

The Board of Examiners was composed of C. B. Ross, Inspector; John McClane, Superintendent, and David Clark, Mine Foreman.

There were 29 applicants examined for Mine Foremen's certificates and 42 for Fire Bosses' certificates. The following persons having passed a satisfactory examination were granted certificates as Mine Foremen:

First Grade

James C. Dawson, Greensburg; Stephen Petroskey, Whitney; John McKenna, Hostetter, and John Shanley, Crabtree.

THIRD DISTRICT

ARMSTRONG, BUTLER, BEAVER, CLARION, LAWRENCE AND MERCER COUNTIES

Mercer, Pa., March 2, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Act of Assembly of May 15, 1893, I herewith transmit my annual report of the Third Bituminous District for the year ending December 31, 1909.

The increase in production over the year 1908 was 130,180 tons. The number of fatal accidents was the same, but there was a reduction of two in the number of non-fatal accidents.

Many of the mines were idle a good deal of the time, especially the smaller mines of the district, during the spring and summer months.

A description of the condition of the mines and the statistics connected with their operation are given in the report.

Respectfully submitted,

THOMAS K. ADAMS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	87
Number of mines in operation	78
Number of tons of coal shipped to market,	3,389,758
Number of tons used at mines for steam and heat,	125,787
Number of tons sold to local trade and used by employes,	48,154
Number of tons used in the manufacture of coke,	1,553
Number of tons of coal produced,	3,565,252
Number of tons of coke produced,	916
Number of coke ovens,	———
Number of coke ovens in operation,	———
Number of tons of coal produced by pick mining,	1,716,807
Number of tons produced by compressed air machines,	1,179,450
Number of tons produced by electrical machines,	668,995
Number of persons employed inside of mines,	5,567
Number of persons employed outside, including coke workers,	747
Number of persons employed at manufacture of coke,	———
Number of fatal accidents inside of mines,	7
Number of fatal accidents outside,	———
Number of non-fatal accidents inside of mines,	35
Number of non-fatal accidents outside,	12
Number of tons of coal produced per fatal accident inside,	509,322
Number of persons employed per fatal accident inside,	795
Number of persons employed per fatal accident outside,	———
Number of persons employed per non-fatal accident inside,	159
Number of persons employed per non-fatal accident outside,	62
Number of wives made widows,	4
Number of children made orphans,	12
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	———
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	20
Number of electric motors used outside,	———
Number of fans in use,	53
Number of furnaces in use,	22
Number of gaseous mines in operation,	3
Number of non-gaseous mines in operation,	75
Number of new mines opened,	1
Number of old mines abandoned,	6

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Great Lakes Coal Company,	456,806
Sharon Coal and Limestone Company,	368,720
Butts Cannel Coal Company,	163,404
Westerman-Filer Company,	145,156
Acme Coal Mining Company,	144,660
State Line Coal Company,	114,575
Grove Coal Company,	113,840
Mercer Iron and Coal Company,	113,389
Pittsburg Plate Glass Company,	108,620
Eagle Coal Company,	101,309
Pardoe Coal Company,	96,667
Keystone Mining Company,	88,401
Monterey Coal Company,	74,777
Widnoon Coal Mining Company,	74,359
F. A. Mizener,	72,183
Erie Coal and Coke Company,	67,161
Fowler Coal Mining Company,	65,135
Samuel Sherwin,	64,579
Clarion Coal Mining Company,	62,353
Brady's Bend Coal Mining Company,	59,645
Shenango Coal Company,	58,813
Monarch Coal Company,	56,352
Beaver Coal and Coke Company,	55,967
Bessemer and Lake Erie Coal Mining Company,	55,052
Rochester and Pittsburg Coal and Iron Company,	54,879
Lochrie Brothers Coal Company,	50,000
Chestnut Ridge Coal Mining Company,	49,993
Cunningham Coal Company,	45,081
Cann Coal Company,	43,824
Kittanning Plate Glass Company,	43,119
Francis and Prosser Coal Company,	34,400
Pennsylvania Fuel Company,	33,065
P. D. Sherwin,	32,034
Jackson Mining Company,	26,136
Penn Mining Company,	25,859
Preston Coal Company,	25,549
Mutual Coal Mining Company,	23,657
Glenora Coal Mining Company,	22,983
Nellie Coal Company,	21,415
Standard Coal Mining Company,	20,694
Cherry Run Coal Company,	20,390
W. L. Scott Coal Company,	18,015
Diamond Coal Mining Company,	17,264
Thompson Run Coal Company,	15,000

North Pittsburg Realty Company,	14,787
Hillville Coal Company,	12,046
Oakes Brothers,	10,931
Berger-Aiken Coal Company,	10,764
J. B. Miller,	10,014
Turner Coal Company,	8,907
Maines Coal Company,	6,861
A. Davidson,	5,000
W. F. Clayton,	3,678
George G. Stage and Son,	2,669
Maxler-Roger Coal and Limestone Company,	1,550
Rimerton Coal Company,	535
Keystone Collieries, Incorporated,	50,414
Witch Hazel Coal Company,	9,160
Kensington Coal and Iron Company,	2,656
Jamisonville Coal and Coke Company,	10,000
Total,	3,565,252

Production by Counties

Armstrong,	740,974
Butler,	797,679
Beaver,	172,653
Clarion,	823,559
Lawrence,	154,126
Mercer,	876,261
Total,	3,565,252

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Great Lakes Coal Co.,	1		1	4	3	7	456,806	114,202	633	103	736	633		158	34
Sharon Coal and Limestone Co.,				5	4	9		73,744	503	48	551			101	12
Butts Cannel Coal Co.,				2	1	3		81,702	261	28	289			131	28
Westerman-Filer Co.,	1		1	7		7	145,156	20,737	205	24	229	205		29	
State Line Coal Co.,					1	1			176	15	191				15
Mercer Iron and Coal Co.,	1		1				113,389		191	20	211	191			
Pittsburg Plate Glass Co.,					1	1			115	27	142				27
Pardoe Coal Co.,				3		3		32,222	196	19	215			65	
Keystone Mining Co.,				1		1		88,401	148	19	167			148	
Monterey Coal Co.,				1		1		74,777	95	16	111			95	
Erie Coal and Coke Co.,				1	1	2		67,161	80	9	89			80	9
Fowler Coal Mining Co.,				2		2		32,567	87	10	97			43	
Brady's Bend Coal Mining Co.,	2		2				29,823		68	11	79	34			
Shenango Coal Co.,	1		1				58,813		105	13	118	105			
Monarch Coal Co.,				1		1		56,352	107	13	120			107	
Beaver Coal and Coke Co.,				1		1		55,967	111	19	130			111	
Rochester and Pittsburg Coal and Iron Co.,	1		1	1		1	54,879	54,879	62	8	70	62		62	
Lochrie Brothers Coal Co.,				3	1	4		16,667	69	9	78			23	9
Chestnut Ridge Coal Mining Co.,				1		1		49,993	64	9	73			64	
Standard Coal Mining Co.,				1		1		20,694	86	8	94			86	
W. F. Clayton,				1		1		3,678	10	1	11			10	
Miscellaneous Companies,									2,195	318	2,513				
Totals and averages for district,	7		7	35	12	47	509,322	101,864	5,567	747	6,314	795		159	62

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	1	----	----	----	----	----	----	----	----	----	----	1	14.28
Falls of slate,	----	----	----	----	----	1	----	----	----	----	----	----	1	14.29
Falls of roof,	----	----	----	1	----	----	----	----	1	1	----	----	3	42.85
Explosions of powder and dynamite,	----	----	----	----	----	----	----	----	1	----	----	----	1	14.29
Falling into shafts,	----	----	----	----	----	----	----	----	----	----	1	----	1	14.29
Totals,	----	1	----	1	----	1	----	----	2	1	1	----	7	100.00
Causes of Accidents Outside (No accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	2	----	----	1	----	----	----	1	----	----	----	6	17.14
Falls of slate,	----	----	----	1	----	1	----	----	2	----	----	3	7	20.00
Falls of roof,	2	1	----	2	1	----	----	----	----	----	----	----	6	17.14
Mine cars,	1	1	1	1	----	1	1	1	----	2	----	----	9	25.72
Blasts, premature and otherwise,	1	----	----	----	----	----	----	----	----	1	----	----	2	5.72
Mules	----	----	----	----	----	----	----	----	----	----	----	1	1	2.86
Machinery,	----	----	----	----	----	----	----	----	2	----	----	----	2	5.71
Miscellaneous,	----	----	1	----	----	1	----	----	----	----	----	----	2	5.71
Totals,	6	4	2	4	2	3	1	1	5	3	----	4	35	100.00
Causes of Accidents Outside														
Cars,	----	----	----	1	----	----	2	----	2	----	----	----	5	41.67
Miscellaneous,	2	1	----	----	----	1	1	1	----	----	1	----	7	58.33
Totals,	2	1	----	1	----	1	3	1	2	----	1	----	12	100.00
Grand totals inside and outside,	8	5	2	5	2	4	4	2	7	3	1	4	47	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	1	----	----	----	1	----	----	2	1	----	----	5
Machine scrapers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Company men,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	----	1	----	1	----	1	----	----	2	1	1	----	7
Outside (No accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	5	3	----	3	2	2	----	----	3	1	----	3	22
Machine runners,	----	----	1	1	----	----	1	----	2	----	----	----	5
Drivers and runners,	1	1	1	----	----	1	----	1	----	1	----	1	7
Rope-riders,	----	----	----	----	----	----	----	----	----	1	----	----	1
Totals,	6	4	2	4	2	3	1	1	5	3	----	4	35
Outside													
Miners,	2	----	----	----	----	----	1	----	----	----	----	----	3
Laborers,	----	1	----	----	----	----	1	1	2	----	----	----	5
Drivers and runners,	----	----	----	1	----	1	1	----	----	----	----	----	3
Electricians,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	2	1	----	1	----	1	3	1	2	----	1	----	12
Grand totals inside and outside,	8	5	2	5	2	4	4	2	7	3	1	4	47

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	1	----	----	----	----	----	1	1	----	3
Scotch,	----	----	----	----	----	----	----	----	1	----	----	----	1
Italian,	----	----	----	----	----	1	----	----	1	----	----	----	2
Swedish,	----	1	----	----	----	----	----	----	----	----	----	----	1
Totals,	----	1	----	1	----	1	----	----	2	1	1	----	7

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	1	----	2	1	2	2	2	3	2	1	2	20
English,	----	----	----	----	----	----	----	----	----	----	----	1	1
Scotch,	----	1	----	----	----	----	----	----	----	----	----	----	1
German,	----	----	1	----	----	----	----	----	----	----	----	----	1
Polish,	1	1	----	----	----	----	----	----	----	----	----	----	2
Hungarian,	2	1	----	1	1	1	1	----	----	----	----	----	7
Italian,	2	1	----	1	----	1	1	----	2	----	----	----	8
Slavonian,	----	----	----	----	----	----	----	----	----	1	----	1	2
Austrian,	----	----	----	----	----	----	----	----	1	----	----	----	1
Russian,	----	----	1	----	----	----	----	----	1	----	----	----	2
Bulgarian,	1	----	----	1	----	----	----	----	----	----	----	----	2
Totals,	8	5	2	5	2	4	4	2	7	3	1	4	47

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Great Lakes Coal Co.																
Barnhart,	Drift,	Non-gas.	Fan,	16	6.5	4	100	1.5	Robinson,	Steam,		4	62,000	50,000	62,500	201
Kaylor,	Slope,	Gaseous,	Fan,	12	4.8	3.	121	1.5	Capell,	Steam,		2	60,000	40,000	62,000	133
Snow Hill,	Drift,	Gaseous,	Fan,	15	5.	4.	108	2.	Capell,	Steam,		3	55,000	35,000	60,000	135
Pine Run No. 1,	Drift,	Non-gas.	Fan,	8	4.	3.	225	1.	Capell,	Electricity,		3	29,000	25,000	31,950	150
*Pine Run Nos. 2 and 3,	Drifts,	Non-gas.	Furnaces,								20					
Sharon Coal and Limestone Co.																
Buhl No. 2,	Shaft,	Non-gas.	Fan,	20	7.	5.	60	1.	Brazil,	Steam,		2	32,000	20,000	33,000	117
Buhl No. 3,	Drift,		Fan,	10	2.5	2.5	110	.8	Brazil,	Steam,		2	16,800	12,000	17,000	108
Buhl No. 4,	Drift,		Furnace,								24	2	14,000	10,000	15,000	97
Buhl No. 5,	Shaft,		Fan,	10	3.	2.7	90	1.	Vulcan,	Steam,		3	45,000	30,000	45,500	181
Butts Cannel Coal Co.																
Annandale No. 1,	Drift,	Non-gas.	Fan,	8	2.	2.7	110	.6	Brazil,	Electricity,		1	13,200	10,000	13,600	86
Annandale No. 2,	Drift,	Non-gas.	Fan,	12	4.	3.	120	1.	Brazil,	Electricity,		2	32,000	30,000	33,000	175
Westerman-Filer Co.																
Diamond No. 1,	Shaft,	Non-gas.	Fan,	10	3.5	3.5	110	.5	Brazil,	Steam,		2	20,000	15,000	24,000	82
Diamond No. 3,	Slope,	Non-gas.	Fan,	14	4.	3.	50	.6	Brazil,	Steam,		3	20,000	16,000	24,000	123

*Not in operation at time of inspection.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—In inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Acme Coal Mining Co.																
Acme,	Drift,	Non-gas.	Fan,	12	4.	4.	100	1.	Brazil,	Steam,		2	22,000	18,000	23,000	163
Avondale,	Drift,	Non-gas.	Furnace,								42	1	12,500	12,000	13,000	60
State Line Coal Co.																
State Line,	Drift,	Non-gas.	Fan,	14	4.	3.8	75	1.	Brazil,	Steam,		4	40,000	30,000	42,000	176
Grove Coal Co.																
Enterprise,	Shaft,	Non-gas.	Fan,	12	3.8	3.4	76	1.	Brazil,	Steam,		2	22,000	16,000	24,000	147
Mercer Iron and Coal Co.,																
Stoneboro No. 7,	Shaft,	Non-gas.	Fan,	16	4.5	4.	65	.8	Brazil,	Steam,		3	30,000	25,000	40,500	191
Pittsburg Plate Glass Co.																
Mosgrove No. 1,	Drift,	Non-gas.	Fan,	20	6.	6.	60	1.	Vulcan,	Steam,		3	30,000	20,000	34,000	84
Mosgrove No. 2,	Drift,	Non-gas.	Fan,	7	2.	7.	180	.5	Stine,	Electricity,		2	10,500	9,000	11,000	31
Eagle Coal Co.																
Eagle No. 3,	Drift,	Non-gas.	Fan,	12	4.	3.	115	1.	Brazil,	Steam,		1	16,000	10,000	16,500	40
Eagle No. 4,	Drift,	Non-gas.	Fan,	10	3.5	3.5	100	.6	Brazil,	Steam,		1	24,000	15,000	25,000	64
Pardoe Coal Co.																
Pardoe,	Drift,	Non-gas.	Fan,	10	3.5	2.5	110	1.	Brazil,	Steam,		3	25,000	18,000	26,000	167
Kee,	Drift,	Non-gas.	Fan,	8	3.	2.5	90	.5	Brazil,	Steam,		1	10,500	6,000	11,200	29

Keystone Mining Co.																
Sarah Furnace No. 1,	Drift,	Non-gas.	Fan,	12	4.	3.	68	.5	Brazil,	Steam,		2	12,500	10,000	14,000	68
Sterling No. 3,	Drift,	Non-gas.	Fan,	10	2.5	2.5			Brazil,	Gas,		1	**4,500	2,500	10,000	80
Monterey Coal Co.																
Monterey,	Drift,	Non-gas.	Fan,	12	4.	3.	78	1.	Brazil,	Steam,		1	24,000	16,000	25,000	95
Widnoon Coal Mining Co.																
Widnoon,	Drift,	Non-gas.	Fan,	7	3.7	3.7	192	1.	Capell,	Steam,		2	19,000	15,000	19,440	119
F. A. Mizener																
Grant,	Drift,	Non-gas.	Fan,	12	4.	3.	69	.8	Brazil,	Steam,		1	15,000	10,000	16,000	88
Erie Coal and Coke Co.																
Keystone No. 1,	Drift,	Non-gas.	Fan,	12	4.	3.	125	1.	Brazil,	Steam,		1	20,000	15,000	24,000	80
Fowler Coal Mining Co.																
Fowler,	Shaft,	Non-gas.	Fan,	10	3.	3.	100	1.	Brazil,	Steam,		1	15,000	10,000	16,000	87
Samuel Sherwin																
Kincaid,	Drift,	Non-gas.	Fan,	7	2.	3.	180	.5	Stine,	Gas,		1	16,500	12,000	17,000	51
Clarion Coal Mining Co.																
Clarion,	Drift,	Non-gas.	Fan,	12	4.	3.	80	1.	Pollock,	Steam,		2	18,000	15,000	20,000	67
Brady's Bend Coal Mining Co.																
Hardscrable,	Drift,	Non-gas.	Furnace,								30	1	10,000	8,000	12,500	68
Shenango Coal Co.																
Shenango,	Shaft,	Non-gas.	Fan,	12	3.5	3.5	75	1.	Brazil,	Steam,		2	18,000	10,000	20,000	105
Monarch Coal Co.																
Monarch,	Drift,	Non-gas.	Fan,	8	2.	2.	115	1.	Brazil,	Steam,		2	16,000	10,000	16,500	107
Beaver Coal and Coke Co.																
Beaver No. 1,	Drift,	Non-gas.	Fan,	6	1.5	1.2	200	.8	Murphy,	Steam,		1	18,000	10,000	18,500	56
Beaver No. 3,	Drift,	Non-gas.	Fan,	8	2.	2.7	110	.8	Brazil,	Electricity,		2	21,000	15,000	22,000	55
Bessemer and Lake Erie Coal Mining Co.																
Jefferson,	Drift,	Non-gas.	Fan,	10	3.	3.	115	.9	Brazil,	Electricity,		2	15,000	11,000	16,250	93
Rochester and Pittsburg Coal and Iron Co.																
Cowan,	Drift,	Non-gas.	Fan,	6	1.6	1.6	220	.6	Clark,	Gas,		1	14,000	12,000	18,000	62

**The fan was not in operation at time of inspection.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Lochrie Brothers Coal Co.																
Pennsylvania No. 1,	Drift,	Non-gas.	Fan,	12	4.	3.	60	1.	Brazil,	Steam,		1	13,640	10,000	19,200	69
Chestnut Ridge Coal Mining Co.																
Chestnut Ridge,	Drift,	Non-gas.	Fan,	12	4.	3.	56	.5	Brazil,	Steam,		1	12,000	10,000	13,000	64
Cunningham Coal Co.																
Chicora,	Drift,	Non-gas.	Furnace,								20	1	8,000	6,000	9,450	55
Cann Coal Co.																
Carver,	Shaft,	Non-gas.	Fan,	10	4.	4.	185	1.4	Capell,	Steam,		2	24,000	16,000	39,000	120
Kittanning Plate Glass Co.																
Kittanning Plate Glass,	Drift,	Non-gas.	Fan,	6	2.	2.	190	.8	Blackwell,	Electricity,		1	14,500	12,500	15,000	40
Francis and Prosser Coal Co.																
Sterling,	Drift,	Non-gas.	Furnace,								20	1	12,000	8,000	15,000	46
Pennsylvania Fuel Co.																
Cribbs,	Shaft,	Non-gas.	Fan,	10	3.	3.	110	.5	Brazil,	Steam,		1	9,800	8,000	10,000	48
P. D. Sherwin																
Enterprise,	Drift,	Non-gas.	Fan,	6	2.	2.	115	.5	Buffalo,	Steam,		1	18,000	10,000	18,000	14
Sherwin,	Drift,	Non-gas.	Fan,	8	2.5	3.	100	.5	Cole,	Steam,		1	6,600	6,600	9,000	30

Jackson Mining Co. Jackson,	Drift,	Non-gas.	Fan,	12	3.	3.	70	.8	Brazil,	Steam,		1	18,000	10,000	19,800	59
Penn Mining Co. Penn,	Drift,	Non-gas.	Furnace,								24	1	9,000	8,000	9,180	53
Preston Coal Co. Preston,	Drift,	Non-gas.	Furnace,								12	1	11,000	8,000	12,000	61
Mutual Coal Mining Co. Royle,	Drift,	Non-gas.	Furnace,								30	1	10,000	8,000	12,000	61
Glenora Coal Mining Co. Goss,	Drift,	Non-gas.	Furnace,								24	1	9,000	8,000	11,000	44
Nellie Coal Co. Nellie,	Drift,	Non-gas.	Fan,	10	3.	3.	110	.8	Brazil,	Steam,		1	20,000	15,000	21,000	76
Standard Coal Mining Co. Standard,	Drift,	Non-gas.	Furnace,								35	1	10,000	9,000	13,500	86
Cherry Run Coal Co. Cherry Run,	Drift,	Non-gas.	Furnace,								24	1	6,000	6,000	7,300	36
W. L. Scott Coal Co. Branchton,	Drift,	Non-gas.	Fan,	7	3.	2.	118	.6	Erie,	Steam,		2	14,000	8,000	15,000	27
Diamond Coal Mining Co. Diamond,	Drift,	Non-gas.	Furnace,								24	1	7,200	6,000	9,800	48
Thompson Run Coal Co. Thompson Run,	Drift,	Non-gas.	Fan,	7	3.5	2.	70	.5	Buffalo,	Gasoline,		1	7,200	6,000	8,000	17
North Pittsburg Realty Co. Harmony Junction,	Shaft,	Non-gas.	Exhaust steam.									1	1,000	1,000	1,000	17
Hillville Coal Co. Hillville,	Drift,	Non-gas.	Fan,	10	3.	3.	70	.5	Brazil,	Steam,		2	16,000	10,000	17,100	59
Oakes Brothers Oakes,	Drift,	Non-gas.	Fan,	10	3.	3.	60	.5	Brazil,	Steam,		1	8,500	6,000	9,000	22
Berger-Aiken Coal Co. Bethel,	Shaft,	Non-gas.	Exhaust steam.									1	3,500	3,500	4,500	57

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
J. B. Miller *Mineral Run,	Drift,	Non-gas.	Furnace,								24					
Turner Coal Co. Evans City Shaft,	Shaft,	Gaseous,	Fan,	12	4.	4.	55	.5	Brazil,	Steam,		1	12,500	8,000	14,400	24
Maines Coal Co. Maines,	Slope,	Non-gas.	Furnace,								12	1	1,000	1,000	1,000	12
A. Davidson Davidson,	Drift,	Non-gas.	Furnace,								20	1	2,500	2,500	3,800	15
W. F. Clayton Clayton,	Drift,	Non-gas.	Furnace,								12	1	1,500	1,500	1,500	10
George G. Stage and Son *Stage,	Drift,	Non-gas.	Furnace,								24					
Maxler-Roger Coal and Limestone Co. *Pine Grove,	Drift,	Non-gas.	Furnace,													
Rimerton Coal Co. *Rimerton,	Drift,	Non-gas.														

*Not in operation at time of inspection.

Keystone Collieries, Inc.																
Jocelyn,	Shaft,	Non-gas.	Fan,	12	4.	3.	65	.8	Brazil,	Steam,	----	2	17,800	10,000	18,000	50
Standard,	Drift,	Non-gas.	Fan,	7	1.2	1.2	100	.5	Stine,	Compressed Air.	----	1	9,000	8,000	10,000	18
Witch Hazel Coal Co.																
Chewton,	Drift,	Non-gas.	Furnace,	----	----	----	----	----	----	----	15	1	6,000	5,000	7,500	20
Kensington Coal and Iron Co.																
Melrose,	Drift,	Non-gas.	Furnace,	----	----	----	----	----	----	----	20	1	5,000	5,000	6,000	24
Jamisonville Coal and Coke Co.																
Jamisonville,	Drift,	Non-gas.	Fan,	6	1.5	1.5	100	.5	Buffalo,	Steam,	----	1	12,500	10,000	13,500	27

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Great Lakes Coal Co.,	Barnhart,	Drift,	Non-gas.	25	Compressed Air,	Upper Freeport—E.	42	44	40	130,459
	Kaylor,	Slope,	Gaseous,	12	Electricity,	Lower Kittanning—B.	38	40	36	109,114
	Snow Hill,	Drift,	Gaseous,	12			40	42	38	101,924
	Pine Run No. 1,	Drift,	Non-gas.	10			38	40	36	112,995
	Pine Run Nos. 2 and 3,	Drifts,	Non-gas.	2			38	40	36	2,314
Totals,				61						456,806
Sharon Coal and Limestone Co.,	Buhl No. 2,	Shaft,	Non-gas.	14	Compressed Air,	Brookville—A,	42	44	40	52,000
	Buhl No. 5,	Shaft,	Non-gas.	15			53	58	48	92,000
Totals,				29						144,000
Butts Cannel Coal Co.,	Annandale No. 2,	Drift,	Non-gas.	6	Electricity,	Brookville—A,	60	64	65	139,262
Acme Coal Mining Co.,	Acme,	Drift,	Non-gas.	7	Compressed Air,	Lower Kittanning—B.	45	54	36	57,125
Pittsburg Plate Glass Co.,	Mosgrove Nos. 1 and 2,	Drifts,	Non-gas.	6	Electricity,	Upper Freeport—E.	43	44	42	72,000

Eagle Coal Co.,	Eagle Nos. 3 and 4,	Drifts,	Non-gas.	9	Compressed Air,	Lower Kittanning—B,	39 39	42 42	36 36	89,205
Keystone Mining Co.,	Sarah Furnace No. 1,	Drift,	Non-gas.	2	Compressed Air, Electricity,	Lower Kittanning—B.	40	44	36	13,184 30,000
Monterey Coal Co.,	Monterey,	Drift,	Non-gas.	9	Compressed Air,	Lower Kittanning—B.	36	36	36	74,777
Widnoon Coal Mining Co.,	Widnoon,	Drift,	Non-gas.	10	Compressed Air,	Lower Kittanning—B.	50	60	40	72,720
Fowler Coal Mining Co.,	Fowler,	Shaft,	Non-gas.	7	Compressed Air,	Brookville—A,	47	50	44	39,208
Samuel Sherwin,	Kincaid,	Drift,	Non-gas.	4	Compressed Air,	Upper Freeport—E.	46	48	44	64,200
Clarion Coal Mining Co.,	Clarion,	Drift.	Non-gas.	10	Compressed Air,	Lower Kittanning—B.	42	48	36	54,090
Shenango Coal Co.,	Shenango,	Shaft,	Non-gas.	10	Compressed Air,	Brookville—A,	42	44	40	36,497
Monarch Coal Co.,	Monarch,	Drift,	Non-gas.	6	Compressed Air,	Lower Kittanning—B.	36	36	36	46,000
Beaver Coal and Coke Co.,	Beaver No. 1,	Drift,	Non-gas.	2	Electricity,	Upper Kittanning—C,	36	36	36	5,036
	Beaver No. 3,	Drift,	Non-gas.	2	Electricity,		36	36	36	30,025
Totals,				4						35,061
Bessemer and Lake Erie Coal Mining Co.,	Jefferson,	Drift,	Non-gas.	7	Compressed Air,	Brookville—A,	57	60	54	54,000
Rochester and Pittsburg Coal and Iron Co.,	Cowan,	Drift,	Non-gas.	3	Compressed Air,	Upper Freeport—E.	46	48	44	18,293
Lochrie Brothers Coal Co.,	Pennsylvania No. 1,	Drift,	Non-gas.	10	Compressed Air,	Brookville—A,	44	48	40	50,000
Chestnut Ridge Coal Mining Co.,	Chestnut Ridge,	Drift,	Non-gas.	4	Compressed Air,	Lower Kittanning—B.	38	40	36	25,000
Kittanning Plate Glass Co.,	Kittanning Plate Glass,	Drift,	Non-gas.	3	Electricity,	Upper Freeport—E.	40	42	38	43,000
P. D. Sherwin,	Enterprise,	Drift,	Non-gas.	3	Compressed Air,	Upper Freeport—E.	57	60	54	13,704
Penn Mining Co.,	Penn,	Drift,	Non-gas.	1	Electricity,	Lower Kittanning—B.	42	48	36	12,516
Preston Coal Co.,	Preston,	Drift,	Non-gas.	5	Compressed Air,	Lower Kittanning—B.	36	36	36	24,176
Mutual Coal Mining Co.,	Royle,	Drift,	Non-gas.	7	Compressed Air,	Brookville—A,	42	44	40	19,255
Glenora Coal Mining Co.,	Goss,	Drift,	Non-gas.	2	Compressed Air,	Lower Kittanning—B.	41	42	40	18,000
Nellie Coal Co.,	Nellie,	Slope,	Non-gas.	9	Compressed Air,	Brookville—A,	42	44	40	20,956
Cherry Run Coal Co.,	Cherry Run,	Drift,	Non-gas.	7	Compressed Air,	Lower Kittanning—B.	39	42	36	20,390
W. L. Scott Coal Co.,	Branchton,	Drift,	Non-gas.	2	Electricity,	Brookville—A,	36	36	36	10,809
Hillville Coal Co.,	Hillville,	Drift,	Non-gas.	5	Compressed Air,	Lower Kittanning—B.	36	36	36	12,046
J. B. Miller,	Mineral Run,	Drift,	Non-gas.	2	Compressed Air,	Brookville—A,	36	36	36	10,014
Turner Coal Co.,	Evans City Shaft,	Shaft,	Gaseous,	2	Compressed Air,	Not known,	36	36	36	8,907
George G. Stage and Son,	Stage,	Drift,	Non-gas.	7	Compressed Air,	Upper Kittanning—C.	36	36	36	1,330

TABLE J—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Maxler-Ruger Coal and Limestone Co.,	Pine Grove,	Drift,	Non-gas.	2	Compressed Air,	Brookville—A,	36	36	36	1,500
Keystone Collieries, Incorporated,	Jocelyn,	Shaft,	Non-gas.	5	Compressed Air,	Lower Kittanning—B,	38	40	36	42,414
	Standard,	Drift,	Non-gas.	2			38	40	36	8,000
Totals,				7						50,414
Jamisonville Coal and Coke Co.,	Jamisonville,	Drift,	Non-gas.	3	Compressed Air,	*	36	36	36	10,000
Grand totals,				275						1,848,445

*Unknown.

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Great Lakes Coal Co. Barnhart, Kaylor, Snow Hill, Pine Run No. 1, Pine Run Nos. 2 and 3,	Armstrong,	Thomas Ligget,	Pittsburg,	G. M. Hughes,	Kaylor,	Western Allegheny
Sharon Coal and Limestone Co. Buhl No. 2, Buhl Nos. 3 and 4, Buhl No. 5,	Lawrence, Butler, Mercer,	F. P. Filer,	Mercer,	John Marshall,	Volant,	Wolf Creek Branch of Penna.
Butts Cannel Coal Co. Annandale Nos. 1 and 2,	Butler,			George Gould,	Deegan,	B. and L. E.
Westerman-Filer Co. Diamond Nos. 1 and 3,	Mercer,	F. P. Filer,	Mercer,	Frank B. Spencer,	Grove City,	B. and L. E.
Acme Coal Mining Co. Acme, Avondale,	Clarion,			L. B. Lewis,	Rimersburg,	B. and A. V. Div. of Penna.
State Line Coal Co. State Line,	Beaver,	F. J. Mullins,	Salem, O.,	Hugh Laughlin,	East Palestine, O.,	Penna. Lines West
Grove Coal Co. Enterprise,	Mercer,	J. V. Morris,	Cleveland, O.			B. and L. E.
Mercer Iron and Coal Co. Stoneboro No. 7,	Mercer,	Robert P. Cann,	Stoneboro,	William Reither,	Stoneboro,	L. S. and M. S.
Pittsburg Plate Glass Co. Mosgrove Nos. 1 and 2,	Armstrong,	Jesse K. Johnston,	Charleroi,	George H. Deike,	Mosgrove,	B. and A. V. Div. of Penna.

TABLE 1— Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Eagle Coal Co.						
Eagle Nos. 3 and 4,	Clarion,			H. H. Moody,	Fredell,	B. and A. V. Div. of Penna.
Pardoe Coal Co.						
Pardoe,	Mercer,	E. L. Filer,	Pardoe,			B. and L. E.
Kee,						
Keystone Mining Co.						
Sarah Furnace No. 1,	Clarion,	George E. Henry,	East Brady,	Peter Henry,	East Brady,	B. and A. V. Div. of Penna.
Sterling No. 3,						
Monterey Coal Co.						
Monterey,	Clarion,	L. W. Hicks,	Leechburg,	A. J. Watson,	West Monterey,	B. and A. V. Div. of Penna.
Widnoon Coal Mining Co.						
Widnoon,	Armstrong,	F. M. Brown,	Lawsonham,	F. M. Brown,	Lawsonham,	B. and A. V. Div. of Penna.
F. A. Mizener						
Grant,	Butler,			Alexander Skinner,	Claytonia,	B. and L. E.
Erie Coal and Coke Co.						
Keystone No. 1,	Butler,	Levi Deal,	Grove City,	Levi Deal,	Grove City,	B. and L. E.
Fowler Coal Mining Co.						
Fowler,	Mercer,	W. H. Winsworth,	Youngstown, O.	William Jenkins,	Jackson Center,	N. C. and S. Branch of Penna.
Samuel Sherwin						
Kincaid,	Butler,			Samuel Sherwin,	Karns City,	Western Allegheny
Clarion Coal Mining Co.						
Clarion,	Clarion,	George Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	B. and A. V. Div. of Penna.
Brady's Bend Coal Mining Co.						
Hardscrable,	Clarion,			Charles A. Royce,	East Brady,	B. and A. V. Div. of Penna.
Shenango Coal Co.						
Shenango,	Mercer,	C. H. Johnston,	New Castle,	William Collins,	New Castle,	B. and L. E.
Monarch Coal Co.						
Monarch,	Clarion,	C. P. McCafferty,	East Brady,	C. P. McCafferty,	East Brady,	B. and A. V. Div. of Penna.

Beaver Coal and Coke Co. Beaver Nos. 1 and 3,	Lawrence,	Howard K. Hartsuff.	Wampum,			E. and P. of Penna.
Bessemer and Lake Erie Coal Mining Co. Jefferson,	Butler,	Fred Stover,	Grove City,	Fred Stover.	Grove City,	B. and L. E.
Rochester and Pittsburg Coal and Iron Co. Cowan,	Armstrong,	A. W. Calloway,	Punxsutawney.	R. C. Patterson,	Cowansville,	B. R. and P.
Lochrie Brothers Coal Co. Pennsylvania No. 1,	Butler,	Thomas Lochrie,	Hilliard,			B. and L. E.
Chestnut Ridge Coal Mining Co. Chestnut Ridge,	Clarion,	M. A. Lehner,	Rimersburg.			B. and A. V. Div. of Penna.
Cunningham Coal Co. Chicora,	Butler,	P. A. Jordan,	Chicora,	P. A. Jordan,	Chicora,	B. and O.
Cann Coal Co. Carver,	Mercer,	Robert P. Cann,	Stoneboro,	Thomas Harrison,	Stoneboro,	L. S. and M. S.
Kittanning Plate Glass Co. Kittanning Plate Glass,	Armstrong,	George W. Reese,	Kittanning,	John L. Benson,	Kittanning,	Local Trade
Francis and Prosser Coal Co. Sterling,	Beaver,	Thomas G. Francis.	Cannelton,	Thomas G. Francis,	Cannelton,	P. L. and W.
Pennsylvania Fuel Co. Cribbs,	Mercer,	J. A. Gealey,	Struthers, O.	J. W. Jones,	Volant,	Wolf Creek Branch of Penna.
P. D. Sherwin Enterprise, Sherwin,	Butler,	W. E. Sherwin, P. D. Sherwin,	Karns City, Butler,			B. and O.
Jackson Mining Co. Jackson,	Mercer,	Robert P. Cann,	Stoneboro,	George Young,	Stoneboro,	Penna. Lines West
Penn Mining Co. Penn,	Clarion,	H. C. Burket,	Greensburg,	H. C. McDivitt,	Rimersburg,	B. and A. V. Div. of Penna.
Preston Coal Co. Preston,	Clarion,	H. K. Knopf,	Pittsburg,	Jacob Rosenhoffer,	West Monterey,	B. and A. V. Div. of Penna.
Mutual Coal Mining Co. Royle,	Butler,	Harry Hamilton,	Grove City,	Fred Hamilton,	Hilliard,	B. and L. E.

TABLE 1—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Glenora Coal Mining Co. Goss,	Clarion,	Amos Goss,	Catfish,	Amos Goss,	Catfish,	B. and A. V. Div. of Penna.
Nellie Coal Co. Nellie,	Butler,	Thomas B. DeArmit.	Grove City,	C. B. McFarlin,	Hilliard,	B. and L. E.
Standard Coal Mining Co. Standard,	Butler,	Harry Hamilton,	Grove City,	Fred Hamilton,	Hilliard,	B. and L. E.
Cherry Run Coal Co. Cherry Run,	Clarion,	L. C. Andrews,	Elmira, N. Y.	G. H. Moore,	Rimersburg,	B. and A. V. Div. of Penna.
W. L. Scott Coal Co. Branchton,	Butler,	W. L. Scott,	Erie,	H. S. Sterling,	Keister,	B. and L. E.
Diamond Coal Mining Co. Diamond,	Clarion,	R. A. Smith,	Rimersburg,	R. A. Smith,	Rimersburg,	B. and A. V. Div. of Penna.
Thompson Run Coal Co. Thompson Run,	Beaver,	G. E. Moyer,	Ellwood City.	Walter Linzey,	Beaver Falls,	P. and L. E.
North Pittsburg Realty Co. Harmony Junction,	Butler,	G. W. Westhoven,	Eidenau,			Local Trade
Hillville Coal Co. Hillville,	Clarion,	Henry Williams,	Fredell,	Henry Williams,	Fredell,	B. and A. V. Div. of Penna.
Oakes Brothers Oakes,	Mercer,	C. H. Oakes,	Volant,	Samuel Oakes,	Volant,	Wolf Creek Branch of Penna.
Berger-Aiken Coal Co. Bethel,	Mercer,	Alex. McLean,	West Middlesex.	Alex. McLean,	West Middlesex,	Sharpsville
J. B. Miller Mineral Run,	Clarion,	J. B. Miller,	Sligo,	H. C. Miller,	Sligo,	B. and A. V. Div. of Penna.
Turner Coal Co. Evans City Shaft,	Butler,	J. L. Turner,	Evans City,	J. L. Turner,	Evans City,	B. and O.

Maines Coal Co.						
Maines,	Butler,	W. A. Maines,	Butler,	W. A. Maines,	Butler,	B. and L.
A. Davidson						
Davidson,	Beaver,	A. Davidson,	Beaver Falls,			Local Trade
W. F. Clayton						
Clayton,	Beaver,	W. F. Clayton,	Beaver Falls,			Local Trade
George G. Stage and Son						
Stage,	Butler,	G. G. Stage,	Greenville,	James Welsh,	Claytonia,	B. and L. E.
Maxler-Roger Coal and Limestone Co.						
Pine Grove,	Clarion,	W. C. Kerr,	Freeport,	Joseph M. Kerr,	Parkers Landing,	B. and A. V. Div. of Penna.
Rimerton Coal Co.						
Rimerton,	Armstrong,	L. W. Hicks,	Leechburg,	A. J. Watson,	West Monterey,	B. and A. V. Div. of Penna.
Keystone Collieries, Inc.						
Jocelyn, Standard,	Clarion,	S. J. Macy,	Rimersburg,	S. J. Macy,	Rimersburg,	B. and A. V. Div. of Penna.
Witch Hazel Coal Co.						
Chewton,	Lawrence,	W. J. Sampson,	Youngstown, O.	John H. Walker,	Wampum,	B. and O.
Kensington Coal and Iron Co.						
Melrose,	Armstrong,	John Robinsteen,	Kittanning,	J. N. Robinsteen,	Cowanshannock,	B. and A. V. Div. of Penna.
Jamisonville Coal and Coke Co.						
Jamisonville,	Butler,			Carmine Marinaro,	Butler,	B. and L. E.
Pittsburg Coal and Fuel Co.						
*Wahlville Nos. 1 and 2,	Butler,	Robert Law,	Pittsburg,	James Robertson,	Evans City,	B. and O.
Kittanning Coal and Coke Co.						
*Kittanning,	Armstrong,			H. B. Cooper,	Rimer,	B. and A. V. Div. of Penna.
Hedstrom Coal Mining Co.						
*Dutch Hill,	Clarion,	E. C. Roberts,	Buffalo, N. Y.			B. and A. V. Div. of Penna.
Rogers Coal Co.						
*Hallston,	Butler,			W. G. Rogers,	Claytonia,	B. and L. E.
Sligo Coal and Coke Co.						
*Sligo,	Clarion,					B. and A. V. Div. of Penna.

*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Great Lakes Coal Co.																
Barnhart,	Armstrong,	129,112	1,077	270	.....	130,459	.....	.....	181	222	....	2	.....	.....	.....	18
Kaylor,	Armstrong,	103,519	4,042	.....	1,553	109,114	916	*	207	152	....	2	.....	.....	.....	16
Snow Hill,	Armstrong,	100,598	1,326	.....	.....	101,924	.....	.....	226	151	....	2	.....	.....	.....	12
Pine Run No. 1,	Armstrong,	112,499	496	.....	.....	112,995	.....	.....	226	167	1	1	.....	.....	.....	10
Pine Run Nos. 2 and 3,	Armstrong,	2,035	279	.....	.....	2,314	.....	.....	68	44	....	....	.....	.....	.....	9
Totals,		447,763	7,220	270	1,553	456,806	916	.....	.....	736	1	7	.....	.....	.....	65
Sharon Coal and Limestone Co.																
Buhl No. 2,	Lawrence,	78,091	9,871	1,037	.....	88,999	.....	.....	304	132	....	1	600	4,000	.....	17
Buhl No. 3,	Butler,	60,543	538	328	.....	61,409	.....	.....	295	114	....	5	.....	500	.....	7
Buhl No. 4,	Butler.	58,507	633	631	.....	59,771	.....	.....	295	104	....	1	.....	500	.....	7
Buhl No. 5,	Mercer,	149,580	8,245	716	.....	158,541	.....	.....	301	201	....	2	1,000	3,000	.....	17
Totals,		346,721	19,287	2,712	.....	368,720	.....	.....	.....	551	....	9	1,600	8,000	.....	48
Butts Cannel Coal Co.																
Annandale No. 1,	Butler,	23,642	.....	500	.....	24,142	.....	.....	193	97	....	....	.....	.....	.....	4
Annandale No. 2,	Butler,	136,862	2,400	.....	.....	139,262	.....	.....	231	192	....	3	25,000	.....	.....	12
Totals,		160,504	2,400	500	.....	163,404	.....	.....	.....	289	....	3	25,000	.....	.....	16

*No coke ovens. Coal sent out of district to be coked on test.

Westerman-Filer Co.																
Diamond No. 1,	Mercer,	51,826	3,199	225		55,250			196	95	1	6	19,176			6
Diamond No. 3,		88,022	1,675	209		89,906			223	134		1	47,280			8
Totals,		139,848	4,874	434		145,156				229	1	7	66,456			14
Acme Coal Mining Co.																
Acme,	Clarion,	106,486	3,007	48		109,541			245	175			21,250			9
Avondale,		35,022	75	22		35,119			196	66			8,750			5
Totals,		141,508	3,082	70		144,660				241			30,000			14
State Line Coal Co.																
State Line,	Beaver,	113,175	1,400			114,575			291	191		1	32,800			12
Grove Coal Co.																
Enterprise,	Mercer,	108,510	4,900	430		113,840			228	160			12,000	3,000		16
Mercer Iron and Coal Co.																
Stoneboro No. 7,	Mercer,	108,086	4,026	1,277		113,389			184	211	1		38,150	1,850		17
Pittsburg Plate Glass Co.																
Mosgrove No. 1,	Armstrong,	105,539	3,081			108,620			295	108		1	17,500	6,000		7
Mosgrove No. 2,									295	34						2
Totals,		105,539	3,081			108,620				142		1	17,500	6,000		9
Eagle Coal Co.																
Eagle Nos. 3 and 4,	Clarion,	98,482	2,697	130		101,309			240	121			450	500		14
Pardoe Coal Co.																
Pardoe,	Mercer,	85,426	1,744	820		87,990			266	177		3	600	100		14
Kee,		8,347	270	60		8,677			135	38			100	50		3
Totals,		93,773	2,014	880		96,667				215		3	700	150		17
Keystone Mining Co.																
Sarah Furnace No. 1,	Clarion,	42,313	1,839	80		44,232			216	81		1	100			4
Sterling No. 3,		44,169				44,169			205	86			100			7
Totals,		86,482	1,839	80		88,401				167		1	200			11
Monterey Coal Co.																
Monterey,	Clarion,	72,502	2,257	18		74,777			202	111		1	5,000	1,000		9
Widnoon Coal Mining Co.																
Widnoon,	Armstrong,	72,331	1,638	390		74,359			179	138						13

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of so-called safety explosives used	
F. A. Mizener Grant,	Butler,	70,030	1,944	209		72,183			259	97			3,000			6
Erie Coal and Coke Co. Keystone No. 1,	Butler,	63,636	1,125	2,400		67,161			253	89		2	15,000	100		6
Fowler Coal Mining Co. Fowler,	Mercer,	60,378	4,105	652		65,135			200	97		2	5,000			8
Samuel Sherwin Kincaid,	Butler,	62,179	2,400			64,579			266	63			10,000	200		4
Clarion Coal Mining Co. Clarion,	Clarion,	58,785	3,328	240		62,353			221	79						7
Brady's Bend Coal Mining Co. Hardscrable,	Clarion,	39,112	75	20,458		59,645			270	79	2		44,400			8
Shenango Coal Co. Shenango,	Mercer,	54,626	3,876	311		58,813			271	118	1		17,750	900		8
Monarch Coal Co. Monarch,	Clarion,	54,752	1,600			56,352			239	120		1				6

Beaver Coal and Coke Co.																
Beaver No. 1,	Lawrence,	21,464	1,801	42		23,307			198	71						1
Beaver No. 3,		32,660				32,660			202	59		1				2
Totals,		54,124	1,801	42		55,967				130		1				3
Bessemer and Lake Erie Coal Mining Co.																
Jefferson,	Butler,	53,294	1,758			55,052			171	105						7
Rochester and Pittsburg Coal and Iron Co.																
Cowan,	Armstrong,	53,367	1,176	336		54,879			247	70	1	1	494			8
Lochrie Brothers Coal Co.																
Pennsylvania No. 1,	Butler,	48,200	1,500	300		50,000			210	78		4				7
Chestnut Ridge Coal Mining Co.																
Chestnut Ridge,	Clarion,	48,993	1,000			49,993			265	73		1				4
Cunningham Coal Co.																
Chicora,	Butler,	44,916	120	45		45,081			235	60			9,500			5
Cann Coal Co.																
Carver,	Mercer,	38,363	5,334	127		43,824			110	134			13,325	400		10
Kittanning Plate Glass Co.																
Kittanning Plate Glass,	Armstrong,	43,119				43,119			208	44			8,000	50		2
Francis and Prosser Coal Co.																
Sterling,	Beaver,	34,400				34,400			215	51			10,730			5
Pennsylvania Fuel Co.																
Cribbs,	Mercer,	30,765	1,800	500		33,065			204	55			20,000			7
P. D. Sherwin																
Enterprise,	Butler,	13,084	420	200		13,704			208	22			1,664			1
Sherwin,		17,150	880	300		18,330			219	38				2,600		2
Totals,		30,234	1,300	500		32,034				60			1,664	2,600		3
Jackson Mining Co.																
Jackson,	Mercer,	23,823	1,746	567		26,136			154	69			5,875			6
Penn Mining Co.																
Penn,	Clarion,	25,411	443	5		25,859			172	59			160			4
Preston Coal Co.																
Preston,	Clarion,	24,296	982	271		25,549			137	72						4

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Mutual Coal Mining Co. Royle,	Butler,	22,932		725		23,657			118	70			2,875	600		11
Glenora Coal Mining Co. Goss,	Clarion,	22,733	250			22,983			219	52			6,000	500		6
Nellie Coal Co. Nellie,	Butler,	18,547	2,558	310		21,415			109	85				4,504		8
Standard Coal Mining Co. Standard,	Butler,	20,108		586		20,694			107	94		1	3,750	250		10
Cherry Run Coal Co. Cherry Run,	Clarion,	18,590	1,800			20,390			195	44			6,000			6
W. L. Scott Coal Co. Branchton,	Butler,	17,000	1,015			18,015			250	37			5,000	2,000		4
Diamond Coal Mining Co. Diamond,	Clarion,	17,264				17,264			149	52				200		6
Thompson Run Coal Co. Thompson Run,	Beaver,	14,825	125	50		15,000			204	19			2,000			5
North Pittsburg Realty Co. Harmony Junction,	Butler,		14,787			14,787			252	21						1
Hillville Coal Co. Hillville,	Clarion,	11,429	605	12		12,046			125	73			250	50		3

Oakes Brothers Oakes,	Mercer,	9,914	917	100		10,931			206	26			1,500			8
Berger-Aiken Coal Co. Bethel,	Mercer,	9,351	200	1,213		10,764			65	65			5,000	50		4
J. B. Miller Mineral Run,	Clarion,	9,606	408			10,014			60	14			600			1
Turner Coal Co. Evans City Shaft,	Butler,	5,941	2,000	966		8,907			200	30			5,500	250		1
Maines Coal Co. Maines,	Butler,	6,386	175	300		6,861			176	14			200			1
A. Davidson Davidson,	Beaver,		52	4,948		5,000			290	18			1,250	5		1
W. F. Clayton Clayton,	Beaver,		40	3,638		3,678			232	11		1	400			1
George G. Stage and Son Stage,	Butler,	2,573	94	2		2,669			16	55			675	400		6
Maxler-Roger Coal and Limestone Co. Pine Grove,	Clarion,	1,400	125	25		1,550			23	50						2
Rimerton Coal Co. Rimerton,	Armstrong,	535				535			25	25						2
Keystone Collieries, Incorporated Jocelyn, Standard,	Clarion,	41,000 7,000	1,000 600	414 400		42,414 8,000			280 150	56 20						5 2
Totals,		48,000	1,600	814		50,414				76						7
Witch Hazel Coal Co. Chewton,	Lawrence,	9,000	60	100		9,160			190	22						1
Kensington Coal and Iron Co. Melrose,	Armstrong.	2,597	48	11		2,656			50	27			800			2
Jamisonville Coal and Coke Co. Jamisonville,	Butler,	**9,000	800	200		10,000			200	30						2
Grand totals,		3,389,758	125,787	48,154	1,553	3,565,252	916			6,314	7	47	406,554	33,559		497

**Estimated

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Great Lakes Coal Co.,	Armstrong,			10	1,500	1,500			5	5	788	12	1,135	805	5	3
Sharon Coal and Limestone Co.,	Lawrence, Butler, Mercer,			10	1,000	1,000				5	250	5	2,734	1,250		3
Butts Cannel Coal Co.,	Butler,			2	250	250			2	2	350	2	400	120	1	
Westerman-Filer Co.,	Mercer,	1	50	5	525	575				3	120	4	275	190		
Acme Coal Mining Co.,	Clarion,			2	300	300			2	3	160	5	515	515	1	1
State Line Coal Co.,	Beaver,			3	170	170				3	120					
Grove Coal Co.,	Mercer,	2	120	2	200	320				2	120	3	1,600	900		
Mercer Iron and Coal Co.,	Mercer,			3	350	350			1	4	456	5	1,487	450	1	1
Pittsburg Plate Glass Co.,	Armstrong,			3	200	200			2	3	275	2	120	100	1	
Eagle Coal Co.,	Clarion,			4	320	320				1	40	1	80	80		2
Pardoe Coal Co.,	Mercer,			4	220	220	2			4	100	3	150	75		
Keystone Mining Co.,	Clarion,			2	300	300						2	40	20	1	1
Monterey Coal Co.,	Clarion,			3	300	300				3	140	5	300	100		2
Widnoon Coal Mining Co.,	Armstrong,			2	300	300				1	60					1
F. A. Mizener,	Butler,			1	150	150				1	175					1
Erie Coal and Coke Co.,	Butler,			1	200	200			1	2	160	2	800	800	1	
Fowler Coal Mining Co.,	Mercer,			3	450	450				3	75	2	300	150		1
Samuel Sherwin,	Butler,			3	450	450				4	150					2
Clarion Coal Mining Co.,	Clarion,			3	250	250				3	60	1	120	120		1
Brady's Bend Coal Mining Co.,	Clarion,											2	150	100		
Shenango Coal Co.,	Mercer,			2	300	300						1	587	300		1
Monarch Coal Co.,	Clarion,			3	250	250			1	3	145				1	1
Beaver Coal and Coke Co.,	Lawrence,	2	160			160			1	2	140	2	1,100	1,000	1	1
Bessemer and Lake Erie Coal Mining Co.,	Butler,			2	200	200			1	1	215	3	350	200	1	1

Rochester and Pittsburg Coal and Iron Co.,	Armstrong,			2	115	115			1						1	1
Lochrie Brothers Coal Co.,	Butler,			2	250	250				1	50	2	500	500		1
Chestnut Ridge Coal Mining Co.,	Clarion,			2	300	300				2	190	1	100	100		1
Cunningham Coal Co.,	Butler,			1	75	75						2	593	593		
Cann Coal Co.,	Mercer,	1	80	4	410	490				4	285	8	3,474	800		
Kittanning Plate Glass Co.,	Armstrong,								1						1	
Pennsylvania Fuel Co.,	Mercer,	1	50	2	150	200				2	70	3	1,200	600		
P. D. Sherwin,	Butler,			2	130	130			1	3	168	2	1,000	500	1	1
Jackson Mining Co.,	Mercer,			3	240	240				3	75	4	1,275	300		
Penn Mining Co.,	Clarion,			1	250	250				1	187	1	75	25	1	
Preston Coal Co.,	Clarion,			2	225	225						1	70	25		1
Mutual Coal Mining Co.,	Butler,			1	150	150						1	80	80		1
Glenora Coal Mining Co.,	Clarion,			1	125	125				1	125	2	75	75		1
Nellie Coal Co.,	Butler,			3	330	330				1	40	1	350	350		1
Standard Coal Mining Co.,	Butler,											1	80	80		
Cherry Run Coal Co.,	Clarion,			2	250	250				1	40	6	235	39		2
W. L. Scott Coal Co.,	Butler,			1	150	150				1	125	2	341	341	1	
Thompson Run Coal Co.,	Beaver,			2	120	120				2	105	1	800	800	1	
North Pittsburg Realty Co.,	Butler,									1	30	1	100	100		
Hillville Coal Co.,	Clarion,			1	150	150			1	2	40	2	42	42	1	1
Oakes Brothers,	Mercer,			2	160	160				3	60	2	800	200		
Berger-Aiken Coal Co.,	Mercer,			1	90	90				1	25	1	250	250		
J. B. Miller,	Clarion,			2	120	120				1	120	2	50	50		1
Turner Coal Co.,	Butler,			3	275	275				2	133	1	450	450		1
Maines Coal Co.,	Butler,	1	50			50				1	25	1	100	60		
A. Davidson,	Beaver,											1	50	50		
W. F. Clayton,	Beaver,											1	30	30		
George G. Stage and Son,	Butler,			1	150	150				2	60	5	500	500		1
Maxler-Roger Coal and Limestone Co.,	Clarion,			2	180	180						1	10	10		1
Keystone Collieries, Incorporated,	Butler,			4	500	500				4	180	2	650	300		2
Jamisonville Coal and Coke Co.,	Butler,			2	150	150				1	10	2	100	100		2
Totals,		8	510	122	13,320	13,740	2		20	98	6,242	122	25,623	14,625	21	42

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine Foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Door boys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Great Lakes Coal Co.,	Armstrong,	4	----	3	------	49	412	49	44	24	48	------	633	1	4	9	11	----	4	74	103	736
Sharon Coal and Limestone Co.,	Lawrence,	----	----	----	------	------	------	------	------	------	------	------	------	----	----	----	----	----	----	------	------	------
	Butler,	----	----	----	------	------	------	------	------	------	------	------	------	----	----	----	----	----	----	------	------	------
	Mercer,	4	----	2	317	8	110	8	42	2	6	4	503	1	----	7	12	----	2	26	48	551
Butts Cannel Coal Co.,	Butler,	2	----	----	80	10	130	10	20	2	5	2	261	2	----	4	2	----	2	18	28	289
Westerman-Filer Co.,	Mercer,	2	----	----	180	------	------	------	15	------	8	------	205	2	----	2	6	----	4	10	24	229
Acme Coal Mining Co.,	Clarion,	2	----	----	119	5	66	5	16	4	6	------	223	1	----	4	2	----	1	10	18	241
State Line Coal Co.,	Beaver,	1	----	----	160	------	------	------	8	1	6	------	176	1	----	2	2	----	----	10	15	191
Grove Coal Co.,	Mercer,	1	1	----	118	------	------	------	16	------	11	------	147	1	----	1	3	----	----	8	13	160
Mercer Iron and Coal Co.,	Mercer,	1	----	----	151	1	5	1	12	1	11	8	191	1	----	2	3	----	3	11	20	211
Pittsburg Plate Glass Co.,	Armstrong,	2	----	----	33	5	52	5	8	4	6	------	115	1	----	4	3	----	2	17	27	142
Eagle Coal Co.,	Clarion,	2	----	----	12	8	58	8	10	3	3	------	104	----	----	2	4	----	1	10	17	121
Pardoe Coal Co.,	Mercer,	2	----	----	164	------	------	------	17	------	4	9	196	2	----	2	5	----	4	6	19	215
Keystone Mining Co.,	Clarion,	2	----	----	77	6	41	6	11	1	4	------	148	2	----	2	2	----	2	11	19	167
Monterey Coal Co.,	Clarion,	1	----	----	------	5	75	5	6	------	3	------	95	1	----	3	2	----	----	10	16	111
Widnoon Coal Mining Co.,	Armstrong,	1	----	----	21	7	65	7	13	2	------	3	119	1	1	1	3	----	1	12	19	138
F. A. Mizener,	Butler,	1	----	----	80	------	------	------	5	------	2	------	88	1	----	1	3	----	1	3	9	97
Erie Coal and Coke Co.,	Butler,	1	----	----	70	------	------	------	5	------	2	2	80	1	----	1	1	----	1	5	9	89
Fowler Coal Mining Co.,	Mercer,	1	----	----	40	5	20	5	8	------	7	1	87	----	----	1	3	----	1	5	10	97
Samuel Sherwin,	Butler,	1	----	----	------	5	32	5	4	1	2	1	51	----	----	2	3	----	1	6	12	63
Clarion Coal Mining Co.,	Clarion,	1	----	----	12	4	36	4	5	1	4	------	67	1	----	2	3	----	1	5	12	79
Brady's Bend Coal Mining Co.,	Clarion,	1	----	----	56	------	------	------	7	2	2	------	68	1	----	1	----	----	1	8	11	79
Shenango Coal Co.,	Mercer,	1	----	----	27	10	42	10	8	------	------	7	105	1	----	1	3	----	1	7	13	118
Monarch Coal Co.,	Clarion,	1	----	----	18	7	60	7	6	3	3	2	107	----	1	2	3	----	1	6	13	120
Beaver Coal and Coke Co.,	Lawrence,	2	----	----	48	7	37	7	6	------	4	------	111	1	----	3	3	----	1	11	19	130

Bessemer and Lake Erie Coal Mining Co.,	Butler,	1	----	----	------	6	68	6	9	1	2	------	93	1	----	1	3	----	----	7	12	105
Rochester and Pittsburg Coal and Iron Co.,	Armstrong,	1	----	----	42	2	10	2	3	1	1	------	62	1	1	1	2	----	1	2	8	70
Lochrie Brothers Coal Co.,	Butler,	1	----	----	5	7	40	7	5	2	2	------	69	1	----	1	3	----	1	3	9	78
Chestnut Ridge Coal Mining Co.,	Clarion,	1	----	----	15	4	35	4	4	------	1	------	64	1	----	1	1	----	----	6	9	73
Cunningham Coal Co.,	Butler,	1	1	----	46	------	------	------	5	1	1	------	55	----	----	1	1	----	1	2	5	60
Cann Coal Co.,	Mercer,	1	----	----	94	------	------	------	9	------	13	3	120	1	----	1	5	----	1	6	14	134
Kittanning Plate Glass Co.,	Armstrong,	1	----	----	2	2	30	2	2	1	------	------	40	----	----	1	----	----	----	3	4	44
Francis and Prosser Coal Co.,	Beaver,	1	----	----	40	------	------	------	4	------	1	------	46	1	----	1	----	----	1	2	5	51
Pennsylvania Fuel Co.,	Mercer,	1	----	----	40	------	------	------	4	------	------	3	48	1	----	1	2	----	1	2	7	55
P. D. Sherwin,	Butler,	2	----	----	25	2	8	2	3	------	2	------	44	2	----	2	4	----	2	6	16	60
Jackson Mining Co.,	Mercer,	1	----	----	49	------	------	------	5	------	4	------	59	----	----	1	3	----	2	4	10	69
Penn Mining Co.,	Clarion,	1	----	----	27	1	18	1	3	1	1	------	53	1	----	1	1	----	----	3	6	59
Preston Coal Co.,	Clarion,	1	----	----	9	5	28	4	3	1	1	9	61	1	----	1	1	----	1	7	11	72
Mutual Coal Mining Co.,	Butler,	1	----	----	------	3	44	3	7	1	2	------	61	1	----	1	2	----	1	4	9	70
Glenora Coal Mining Co.,	Clarion,	1	1	----	------	4	28	4	5	------	1	------	44	1	----	1	1	----	1	4	8	52
Nellie Coal Co.,	Butler,	1	----	----	------	7	52	7	7	------	2	------	76	1	----	1	3	----	----	4	9	85
Standard Coal Mining Co.,	Butler,	1	----	----	77	------	------	------	6	------	2	------	86	1	----	1	1	----	1	4	8	94
Cherry Run Coal Co.,	Clarion,	1	----	----	------	2	25	2	4	1	1	------	36	1	----	1	2	----	1	3	8	44
W. L. Scott Coal Co.,	Butler,	1	----	----	12	2	8	2	2	------	------	------	27	1	----	1	4	----	2	2	10	37
Diamond Coal Mining Co.,	Clarion,	1	1	----	40	------	------	------	3	1	2	------	48	1	----	1	----	----	----	2	4	52
Thompson Run Coal Co.,	Beaver,	1	----	----	14	------	------	------	1	------	1	------	17	----	----	----	1	----	1	------	2	19
North Pittsburg Realty Co.,	Butler,	1	----	----	15	------	------	------	1	------	------	------	17	1	----	----	----	----	1	2	4	21
Hillville Coal Co.,	Clarion,	1	----	----	5	3	40	3	3	1	3	------	59	1	----	1	2	----	3	7	14	73
Oakes Brothers,	Mercer,	1	1	----	16	------	------	------	2	------	2	------	22	1	----	----	2	----	----	1	4	26
Berger-Aiken Coal Co.,	Mercer,	1	1	----	48	------	------	------	4	------	3	------	57	1	----	1	2	----	1	3	8	65
J. B. Miller,	Clarion,	1	----	----	------	2	5	2	1	------	------	------	11	1	----	----	1	----	----	1	3	14
Turner Coal Co.,	Butler,	1	----	1	------	3	15	3	1	------	------	------	24	1	----	----	3	----	1	1	6	30
Maines Coal Co.,	Butler,	1	----	----	8	------	------	------	1	------	2	------	12	1	----	----	1	----	----	------	2	14
A. Davidson,	Beaver,	1	1	----	12	------	------	------	1	------	------	------	15	1	----	----	----	----	1	1	3	18
W. F. Clayton,	Beaver,	1	----	----	8	------	------	------	1	------	------	------	10	----	----	----	----	----	----	1	1	11
George G. Stage and Son,	Butler,	1	----	----	16	5	15	5	5	------	1	1	49	1	----	1	1	----	1	2	6	55
Maxler-Roger Coal and Limestone Co.,	Clarion,	1	1	----	10	2	20	2	2	------	4	------	42	1	----	1	1	----	1	4	8	50
Rimerton Coal Co.,	Armstrong,	1	----	----	16	------	------	------	3	------	1	------	21	1	----	----	----	----	----	3	4	25
Keystone Collieries, Inc.,	Clarion,	2	----	----	------	7	43	7	7	------	2	------	68	1	----	1	2	----	1	3	8	76
Witch Hazel Coal Co.,	Lawrence,	1	----	----	18	------	------	------	1	------	------	------	20	1	----	1	----	----	----	------	2	22
Kensington Coal and Iron Co.,	Armstrong,	1	----	----	20	------	------	------	2	------	------	1	24	1	----	----	----	----	----	2	3	27
Jamisonville Coal and Coke Co.,	Butler,	1	----	----	------	2	20	2	2	------	------	------	27	1	----	1	----	----	----	1	3	30
Totals,		76	8	6	2,512	213	1,793	212	423	63	205	56	5,567	56	7	87	137	----	63	397	747	6,314

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Great Lakes Coal Co.,	Armstrong,	3	2	2	10	19	23	26	25	20	20	19	12	181
Sharon Coal and Limestone Co.,	Lawrence, Butler, Mercer,	26	23	27	25	24	24	25	22	26	26	25	26	299
Butts Cannel Coal Co.,	Butler,	20	14	20	8	8	17	14	17	22	24	25	23	212
Westerman-Filer Co.,	Mercer,	23	3	23	18	16	11	13	15	18	23	24	23	210
Acme Coal Mining Co.,	Clarion,	23	14	22	12	16	15	15	17	20	22	21	24	221
State Line Coal Co.,	Beaver,	25	22	24	25	23	24	25	25	23	26	25	24	291
Grove Coal Co.,	Mercer,	17	20	26	21	21	18	18	13	21	24	22	7	228
Mercer Iron and Coal Co.,	Mercer,	17	11	10	15	11	12	14	15	18	20	18	23	184
Pittsburg Plate Glass Co.,	Armstrong,	26	24	26	25	24	25	26	25	24	23	24	23	295
Eagle Coal Co.,	Clarion,	25	21	27	9	10	17	15	19	24	24	24	25	240
Pardoe Coal Co.,	Mercer,	10	10	9	12	11	19	22	22	23	24	21	18	201
Keystone Mining Co.,	Clarion,	24	21	18	17	13	16	13	12	15	21	22	19	211
Monterey Coal Co.,	Clarion,	19	17	21	12	9	10	16	15	18	22	20	23	202
Widnoon Coal Mining Co.,	Armstrong,	14	13	13	11	15	12	16	14	17	12	18	24	179
F. A. Mizener,	Butler,	23	23	27	25	16	16	15	22	22	25	25	20	259
Erie Coal and Coke Co.,	Butler,	23	20	21	25	18	19	17	18	23	26	23	20	253
Fowler Coal Mining Co.,	Mercer,	23	16	16	12	10	13	15	14	14	22	23	22	200
Samuel Sherwin,	Butler,	25	11	18	23	24	26	18	26	25	24	23	23	266
Clarion Coal Mining Co.,	Clarion,	23	16	18	13	14	17	16	19	16	21	24	24	221
Brady's Bend Coal Mining Co.,	Clarion,	23	22	24	21	20	21	23	24	23	24	24	21	270
Shenango Coal Co.,	Mercer,	17	15	20	18	24	26	25	26	26	24	25	25	271
Monarch Coal Co.,	Clarion,	24	21	22	21	22	23	23	20	22	------	18	23	239
Beaver Coal and Coke Co.,	Lawrence,	17	13	6	15	12	18	16	16	21	26	21	19	200
Bessemer and Lake Erie Coal Mining Co.,	Butler,	8	------	------	10	18	8	18	17	25	24	22	21	171
Rochester and Pittsburg Coal and Iron Co.,	Armstrong,	14	13	14	17	24	24	24	25	23	24	22	23	247
Lochrie Brothers Coal Co.,	Butler,	20	19	18	10	14	19	18	15	18	21	20	18	210
Chestnut Ridge Coal Mining Co.,	Clarion,	21	21	24	19	21	21	21	20	22	26	24	25	265
Cunningham Coal Co.,	Butler,	20	18	18	19	16	16	13	21	21	22	25	26	235
Cann Coal Co.,	Mercer,	16	10	11	13	11	11	8	21	9	------	------	------	110

Kittanning Plate Glass Co.,	Armstrong,	20	6	------	12	22	23	21	23	23	22	24	12	208
Francis and Prosser Coal Co.,	Beaver,	13	14	15	14	12	13	18	21	23	24	24	24	215
Pennsylvania Fuel Co.,	Mercer,	19	15	18	15	16	9	9	9	25	26	24	19	204
P. D. Sherwin,	Butler,	17	15	15	18	14	16	17	20	21	17	23	21	214
Jackson Mining Co.,	Mercer,	12	10	9	9	6	8	11	14	16	17	21	21	154
Penn Mining Co.,	Clarion,	18	9	15	18	16	11	7	7	12	14	22	23	172
Preston Coal Co.,	Clarion,	------	------	------	8	14	18	22	18	17	20	12	8	137
Mutual Coal Mining Co.,	Butler,	12	------	------	14	5	------	4	5	15	17	22	24	118
Glenora Coal Mining Co.,	Clarion,	21	20	19	21	18	22	2	14	16	21	23	22	219
Nellie Coal Co.,	Butler,	12	------	2	5	------	------	8	10	13	14	22	23	109
Standard Coal Mining Co.,	Butler,	11	2	5	------	------	8	5	10	7	15	22	22	107
Cherry Run Coal Co.,	Clarion,	18	12	15	15	9	13	20	16	19	15	21	22	195
W. L. Scott Coal Co.,	Butler,	24	24	27	26	11	15	23	25	24	22	19	10	250
Diamond Coal Mining Co.,	Clarion,	21	13	17	14	11	12	------	------	3	12	22	24	149
Thompson Run Coal Co.,	Beaver,	17	15	------	14	18	15	21	22	19	21	22	20	204
North Pittsburg Realty Co.,	Butler,	25	23	26	25	25	26	20	10	------	20	26	26	252
Hillville Coal Co.,	Clarion,	------	------	------	2	7	5	6	19	20	20	22	24	125
Oakes Brothers,	Mercer,	20	20	15	15	18	15	20	17	16	15	15	20	206
Berger-Aiken Coal Co.,	Mercer,	------	------	------	4	2	1	1	6	8	20	7	16	65
J. B. Miller,	Clarion,	2	2	4	------	------	------	8	1	6	7	6	24	60
Turner Coal Co.,	Butler,	15	10	15	15	20	15	14	15	18	20	20	23	200
Maines Coal Co.,	Butler,	15	12	12	10	10	9	8	15	15	20	24	26	176
A. Davidson,	Beaver,	24	25	27	25	21	22	19	22	26	26	27	26	290
W. F. Clayton,	Beaver,	20	17	22	18	16	15	17	20	20	20	23	24	232
George G. Stage and Son,	Butler,	13	3	------	------	------	------	------	------	------	------	------	------	16
Maxler-Roger Coal and Limestone Co.,	Clarion,	------	------	------	------	------	------	------	------	------	------	------	23	23
Rimerton Coal Co.,	Armstrong,	------	------	------	------	------	------	------	------	------	------	------	25	25
Keystone Collieries, Incorporated,	Clarion,	20	22	23	20	24	22	22	20	11	12	11	8	215
Witch Hazel Coal Co.,	Lawrence,	------	------	------	15	20	21	22	20	22	20	25	25	190
Kensington Coal and Iron Co.,	Armstrong,	------	------	------	------	------	------	------	------	------	9	18	23	50
Jamisonville Coal and Coke Co.,	Butler,	22	22	20	22	15	18	21	20	15	15	10	------	200

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 5	Augustus Swanson,--	Swedish, --	Miner --------	29	S	----	----	Hardscrable, -----	Clarion,	Killed by fall of coal in his room. He failed to sprag the coal after he had undermined a large portion of it.
April 28	Alfred McCaulmus,---	American,--	Scraper, -----	27	M	1	2	Cowan, ----------	Armstrong, --	Killed by fall of roof at face of room while cutting the coal. He neglected to post the roof properly.
June 23	Antio Antiochi, -------	Italian, ----	Miner, -------	34	M	1	7	Hardscrable, -----	Clarion, ------	Fatally injured by fall of draw slate in his room. He failed to take it down or prop it. Died August 21.
Sept. 9	William Elliot, -------	Scotch,-----	Miner, -------	21	S	----	----	Pine Run No. 1,--	Armstrong, ---	Killed by premature explosion of powder and dynamite in his working place. It is supposed that he became temporarily insane and began tampering with the fuse, a spark from which ignited a can of powder, thus exploding the dynamite.
21	James Angelo, -------	Italian, ----	Miner, -------	46	M	1	1	Diamond No. 1,--	Mercer, -------	Killed by fall of roof while undercutting pillar coal. He had neglected to prop the roof before beginning work.
Oct. 9	Dinnis Connors, ------	American,--	Miner, -------	58	M	1	2	Shenango, --------	Mercer, -------	Killed by fall of roof in his room while undercutting the coal. He neglected to prop the roof.
Nov. 26	Wesley Wright, -------	American,--	Top-hand, ---	15	S	----	----	Stoneboro No. 7,	Mercer, -------	Killed by falling down a shaft from the surface landing, a depth of 120 feet. He, with two older men, was moving a car to put it on the cage at the surface landing, when he was pushed into the shaft. The accident was due to the carelessness of the two men who were assisting him.

TABLE 5—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 4	Mike Boats,	Polish,	Miner,	17	S	Fowler,	Mercer,	Leg broken by a fall of roof at face of room.
18	Frank Jones,	American,	Driver,	20	S	Standard,	Butler,	Injured by mine cars on haulage way in the mine.
19	Dominick Pigantei,	Italian,	Miner,	24	S	*Buhl Nos. 3 and 4,	Butler,	Foot injured by the haulage rope. Outside.
	Jerry James,	American,	Miner,	37	M			Leg injured by the haulage rope. Outside.
21	Mike Fusin,	Hungarian,	Miner,	30	M	Diamond No. 1,	Mercer,	Head injured by fall of roof on road near his room.
	Mike Mudaite,	Italian,	Miner,	25	S	Pardoe,	Mercer,	Leg broken by fall of coal at face of room.
	Marine Pauiff,	Bulgarian,	Miner,	22	M	Buhl No. 5,	Mercer,	Face and hands burned by premature blast at face of entry.
29	Joe Saboot,	Hungarian,	Miner,	38	S	Pennsylvania No .1,	Butler,	Leg broken by fall of coal at face of room.
Feb. 3	Mike Leon,	Italian,	Miner,	45	M	Diamond No. 1,	Mercer,	Foot injured by fall of coal at face of room.
5	Steve Sorvesor,	Hungarian,	Miner,	31	M	Diamond No. 1,	Mercer,	Foot injured by fall of coal at face of a pillar.
8	Steve Redmond,	American,	Driver,	37	M	Pardoe,	Mercer,	Body injured by mine cars on entry in mine.
11	Robert Garrick,	Scotch,	Laborer,	46	M	Pennsylvania No. 1,	Butler,	Leg broken by falling off a platform. Outside.
22	Peter Pastohavitch,	Polish,	Miner,	24	S	Pennsylvania No. 1,	Butler,	Leg broken by fall of roof at face of room.
March 8	John Ghrear,	German,	Machine cutter,	36	M	Monarch,	Clarion,	Body injured by a pick while riding in empty car in mine.
9	Steve Precola,	Russian,	Driver,	28	M	Diamond No. 1,	Mercer,	Foot injured by mine cars on haulage way in mine.
April 13	Peter Uano,	Bulgarian,	Miner,	30	M	Diamond No. 1,	Mercer,	Finger taken off by mine cars on haulage way in mine.

*Buhl mines Nos. 3 and 4 use the same tipple outside.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April 20	Joe Culush,	Hungarian,	Miner,	26	S	Diamond No. 1,	Mercer,	Leg broken by fall of slate at face of room.
21	James Lundy,	American,	Driver,	28	S	State Line,	Beaver,	Leg broken by mine cars. Outside.
28	John Phillips,	American,	Machine cutter,	38	S	Cowan,	Armstrong,	Hips and legs injured by fall of roof at face of room.
30	Carmon Agonstine,	Italian,	Miner,	30	S	Fowler,	Mercer,	Foot injured by fall of roof at face of room.
May 6	Steve Boka,	Hungarian,	Miner,	27	M	Keystone No. 1,	Butler,	Collar bone and two ribs broken by fall of coal at face of room.
	J. M. Rankin,	American,	Miner,	47	M	Chestnut Ridge,	Clarion,	Back injured by fall of roof at face of room.
June 9	Jim Francisco,	Italian,	Driver,	21	S	Buhl No. 3,	Butler,	Body bruised by mine cars on haulage road in mine.
12	Laurence Fleming,	American,	Laborer,	17	S	*Buhl Nos. 3 and 4,	Butler,	Body scalded by hot water from boilers. Outside.
15	Steve Moner,	Hungarian,	Miner,	45	S	Annandale No. 2,	Butler,	Foot bruised by fall of slate at face of room.
23	John McCarl,	American,	Miner,	31	M	Buhl No. 2,	Lawrence,	Foot injured by a drill on entry road.
July 2	Thomas H. Freed,	American,	Machine cutter,	48	M	Beaver No. 3,	Lawrence,	Leg crushed between a mining machine and mine cars at face of entry.
25	Peter Christain,	Italian,	Driver,	21	S	*Buhl Nos. 3 and 4,	Butler,	Wrist injured by mine cars. Outside.
27	George Westhoven,	American,	Miner,	46	M	Kaylor,	Armstrong,	Two ribs broken by falling off a platform. Outside.
31	Jno. Butnar,	Hungarian,	Laborer,	36	M	Keystone No. 1,	Butler,	Leg injured by mine cars. Outside.
Aug. 12	John Myers,	American,	Driver,	37	M	Annandale No. 2,	Butler,	Foot injured by mine cars at room parting.
20	William Murran,	American,	Laborer,	35	S	Annandale No. 2,	Butler,	Head and shoulder bruised by coal. Outside.
Sept. 2	Carmilo Stravalaci,	Italian,	Miner,	25	S	Barnhart,	Armstrong,	Leg and body injured by draw slate at face of room.

*Buhl mines Nos. 3 and 4 use the same tipple outside.

Sept.	7	William Wardle,	American,	Miner,	40	M	Buhl No. 5,	Mercer,	Collar bone broken by fall of coal at face of room.
	9	William W. Crawford,	American,	Laborer,	48	M	Barnhart,	Armstrong,	Body injured by dirt car. Outside.
	15	Andrew Helper,	American,	Machine cutter,	46	M	Snow Hill,	Armstrong,	Leg injured by mining machine at face of room.
	21	Joe Montani,	Italian,	Laborer,	21	M	Snow Hill,	Armstrong,	Wrist injured by a dirt car. Outside.
	22	Joe Spielage,	Russian,	Miner,	26	M	Pine Run No. 1,	Armstrong,	Back injured by draw slate at face of room.
	28	John Dolmage,	Austrian,	Machine cutter,	29	M	Kaylor,	Armstrong,	Leg injured by mining machine at face of room.
Oct.	13	Youdan Paso,	Slavonian,	Miner,	20	M	Diamond No. 3,	Mercer,	Head and arms burned by flame from a premature blast at face of room.
	22	Orlo Brogan,	American,	Rope-rider,	16	S	Sarah Furnace No.1,	Clarion,	Foot injured by mine cars on haulage way at parting in mine.
	26	Perry Thompson,	American,	Driver,	27	M	Buhl No. 4,	Butler,	Back injured by mine cars on haulage way in the mine.
Nov.	18	William Usher,	American,	Electrician,	26	M	Mosgrove No. 1,	Armstrong,	Leg broken by the inclined plane rope. Outside.
Dec.	2	Clint Serrine,	American,	Driver,	24	S	Pennsylvania No. 1,	Butler,	Cheek bone broken by a mule on haulage way in the mine.
	6	Robert Campbell,	American,	Miner,	47	S	Pardoe,	Mercer,	Back injured by fall of slate at face of a pillar.
	8	Steve Zavalyelriga,	Slavonian,	Miner,	16	S	Monterey,	Clarion,	Leg broken by fall of slate at face of room.
	10	Harry Hodge,	English,	Miner,	54	M	Clayton,	Beaver,	Foot injured by fall of slate at face of entry.

CONDITION OF MINES

GREAT LAKES COAL COMPANY

Kaylor.—I detected explosive gas in two entries, but they were not being operated at the time of my inspection. A large volume of air was being well distributed through the different sections of the mine. Near the face of the works much water is being produced, hence the drainage is somewhat defective at that point.

Snow Hill.—No explosive gas has been found by the use of the safety lamp during the year. The mine is well ventilated and drained and in good condition generally.

Barnhart.—Reasonably well ventilated, but the drainage was defective at a few points on the haulageways.

Pine Run No. 1.—As a whole, very well ventilated, but in some portions of it the velocity of the air was somewhat weak. The drainage of the mine was reasonably good.

Pine Run Nos. 2 and 3.—Very few persons were employed in No. 2 mine and none at No. 3 during the year. I did not have an opportunity to inspect either of them during latter part of year.

SHARON COAL AND LIMESTONE COMPANY

Buhl No. 2.—Ventilation was reasonably good, except in one entry, where the velocity of the air current was not strong enough, which was due to too much leakage at doors along the air course. The drainage of the mine was fair except at a few points on the entries.

Buhl No. 3.—A rope system of haulage and a Brazil ventilating fan ten feet in diameter have been installed during the year.

Buhl No. 3.—Ventilation and drainage were very satisfactory.

Buhl No. 4.—Ventilation was very satisfactory, but the drainage needed improvement.

Buhl No. 5.—Very well ventilated. Many parts of the mine were very wet, and by reason of this the drainage at points was defective.

BUTTS CANNEL COAL COMPANY

Annandale Nos. 1 and 2.—In very satisfactory condition both as to ventilation and drainage.

WESTERMAN-FILER COMPANY

Diamond Nos. 1 and 3.—Ventilation is in satisfactory volume, but it could be more efficiently distributed to the working faces by a more liberal use of check doors, especially for No. 3 mine. The drainage at some points on the main haulageways needed improvement.

ACME COAL MINING COMPANY

Acme.—A satisfactory volume of air produced, but through excessive leakage at doors and stoppings much of it failed to reach the inner workings. The defects will be remedied soon.

Avondale.—Ventilation was good. The drainage at one point on the main haulage road was defective, but a ditch was being provided to drain off the water.

STATE LINE COAL COMPANY

State Line.—This mine, as a whole, was in a very satisfactory condition.

GROVE COAL COMPANY

Enterprise.—A very satisfactory volume of air was being produced, but it was not well conveyed to the working faces, there being too much leakage of the air currents at doors and stoppings. The main air course, which is also the traveling way, has been enlarged and repaired recently, which will improve the ventilation. The drainage is fair.

MERCER IRON AND COAL COMPANY

Stoneboro No. 7.—The ventilation and drainage were satisfactory. An electric plant is being installed at this mine and hereafter the haulage will be done by electric motor instead of by mules.

PITTSBURG PLATE GLASS COMPANY

Mosgrove Nos. 1 and 2.—Fairly well ventilated and drained.

EAGLE COAL COMPANY

Eagle Nos. 3 and 4.—Reasonably well ventilated and drained.

PARDOE COAL COMPANY

Pardoe.—A good volume of air was being produced, but owing to so much leakage at stoppings along the air ways, the currents at face of some of the entries were weak. Owing to the mine producing so much water the drainage was somewhat defective.

Kee.—Fairly well ventilated, but the drains not being clean the drainage was not very good.

KEYSTONE MINING COMPANY

Sterling No. 3.—Was not well ventilated at time of my last inspection, owing to the fan machinery not being connected with the gas line, which prevented the fan from receiving power to run it, but since my inspection the power has been furnished and the fan is now running and I am informed that lots of air is now circulating through the workings.

Sarah Furnace No. 1.—Well ventilated and drained.

MONTEREY COAL COMPANY

Monterey.—In excellent condition generally.

WIDNOON COAL MINING COMPANY

Widnoon.—In very fair condition, but I advised that the speed of the fan be increased so as to produce a higher velocity of the air currents at the face of the workings.

F. A. MIZENER

Grant.—Ventilation where the coal property was being developed was good, but where the pillars were being extracted the drainage was poor. That section of the work, however, will soon be finished.

ERIE COAL AND COKE COMPANY

Keystone No. 1.—Ventilation very satisfactory, and the drainage reasonably good.

FOWLER COAL MINING COMPANY

Fowler.—This being an extremely wet mine the drainage was somewhat defective, but the ventilation was fair.

SAMUEL SHERWIN

Kincaid.—Well ventilated and drained.

CLARION COAL MINING COMPANY

Clarion.—In a very satisfactory condition generally.

BRADY'S BEND COAL MINING COMPANY

Hardscrable.—Fairly well ventilated except in two entries where the air current had not sufficient velocity to carry off the smoke as fast as it was being produced when shots were fired. The drainage, except at one point, was in satisfactory condition.

SHENANGO COAL COMPANY

Shenango.—The velocity of air not strong enough at the face of one of the entries to carry off the smoke. Drainage fair.

MONARCH COAL COMPANY

Monarch.—In very fair condition generally.

BEAVER COAL AND COKE COMPANY

Beaver Nos. 1 and 3.—In a very satisfactory condition.

BESSEMER AND LAKE ERIE COAL MINING COMPANY

Jefferson.—Ventilation and drainage reasonably good.

ROCHESTER AND PITTSBURG COAL AND IRON COMPANY

Cowan.—Well ventilated and the drainage satisfactory, except at a few points on the haulage ways.

LOCHRIE BROTHERS COAL COMPANY

Pennsylvania No. 1.—In very satisfactory condition.

CHESTNUT RIDGE COAL MINING COMPANY

Chestnut Ridge.—A ventilating fan of the Brazil type, twelve feet in diameter, was provided during the year, and the ventilation was much improved. The drainage of the mine was good.

CUNNINGHAM COAL COMPANY

Chicora.—Ventilation of the mine was not very satisfactory as the velocity of the air current was not sufficient to carry off the smoke, but this will be remedied in a short time as another opening is being provided near the face of the workings to serve the purpose of an inlet.

CANN COAL COMPANY

Carver.—The ventilation was reasonably good. Owing to the mine being extremely wet, the drainage was not very good.

KITTANNING PLATE GLASS COMPANY

Kittanning Plate Glass.—In excellent condition both in regard to ventilation and drainage.

FRANCIS AND PROSSER COAL COMPANY

Sterling.—Taking into consideration that the coal acreage at this mine only consists of blocks of coal which were left in an old abandoned works, thereby causing the workings now to be very irregular, it was in a very fair condition, except in one entry where the ventilation was not very good, but that part of the entry was to be abandoned.

PENNSYLVANIA FUEL COMPANY

Cribbs.—Ventilation was good, but the drainage was only fair.

P. D. SHERWIN

Enterprise.—Was in reasonably good condition.

Sherwin.—Ventilation was fair, but the drainage was somewhat defective.

JACKSON MINING COMPANY

Jackson.—Fairly well ventilated, but the drainage was defective, owing to the mine being an extremely wet one.

PENN MINING COMPANY

Penn.—In a very satisfactory condition.

PRESTON COAL COMPANY

Preston.—In a satisfactory condition.

MUTUAL COAL MINING COMPANY

Royle.—In a satisfactory condition.

GLENORA COAL MINING COMPANY

Goss.—In fair condition, except on entry where the ventilation was too far from the face of it, but I ordered this defect to be remedied forthwith.

NELLIE COAL COMPANY

Nellie.—Ventilation and drainage were reasonably good.

STANDARD COAL MINING COMPANY

Standard.—Ventilation, except in one entry, was fair. The drainage was good.

CHERRY RUN COAL COMPANY

Cherry Run.—Ventilation and drainage were fair.

W. L. SCOTT COAL COMPANY

Branchton.—A seven-foot diameter fan, built by the E. M. Link Machinery Company, has been installed at this mine during the year. It is producing a fair volume of air, and if it is properly distributed to the face of the workings, the mine will be fairly well ventilated. The drainage of the mine at a few points needed improvement.

DIAMOND COAL MINING COMPANY

Diamond.—Owing to a squeeze overrunning the principal part of the workings of this mine, it was not in very good condition.

THOMPSON RUN COAL COMPANY

Thompson Run.—Only a few persons were employed in this mine at the time of my last inspection. The general conditions were not very good.

NORTH PITTSBURG REALTY COMPANY

Harmony Junction.—At this new mine the ventilation was not of sufficient volume, and I ordered improvements to be made at once.

HILLVILLE COAL COMPANY

Hillville.—In excellent condition generally.

OAKES BROTHERS

Oakes.—In a very satisfactory condition.

BERGER-AIKEN COAL COMPANY

Bethel.—Ventilation was not satisfactory, and I ordered improvements to be made at once. The present operating company had just purchased the mine, which was probably the cause for the ventilation not being better than it was.

J. B. MILLER

Mineral Run.—Not in operation during any of my visits, hence it was not examined during the year.

GEORGE G. STAGE AND SON

Stage.—Only worked a few days in the months of January and February, and has not been in operation since, and was not examined by me during the year.

MAXLER-ROGER COAL AND LIMESTONE COMPANY

Pine Grove.—Only began operations in December and was not examined by me during the year.

RIMERTON COAL COMPANY

Rimerton.—Only began operations in December and was not examined by me during the year.

TURNER COAL COMPANY

Evans City Shaft.—In only fair condition.

MAINES COAL COMPANY

Maines.—When last inspected only nine persons were employed and the operator claimed exemption from operating under the requirements of the mining law. The mine was not in very satisfactory condition as far as the ventilation was concerned.

A. DAVIDSON

Davidson.—In a very satisfactory condition.

W. F. CLAYTON

Clayton.—In a very satisfactory condition.

JAMISONVILLE COAL AND COKE COMPANY

Jamisonville.—In a very satisfactory condition.

KEYSTONE COLLIERIES, INCORPORATED

Jocelyn.—A good volume of air produced, but the stoppings for conveying the air to the face of the workings being in poor condition the velocity of the air of one of the main currents was so reduced as to make the ventilation at the face of that portion of the workings inefficient.

WITCH HAZEL COAL COMPANY

Chewton.—In very good condition.

KENSINGTON COAL AND IRON COMPANY

Melrose.—In a satisfactory condition.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Academy Building, Mercer, April 6, 7, 8 and 9. The Board of Examiners was composed of Thomas K. Adams, Inspector; Edward Buckham, Superintendent, and George Young, Mine Foreman. There were 29 applicants examined for mine foremen's certificates and 10 for fire bosses' certificates. The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen

First Grade

George H. Deike

Second Grade

Lee R. Nicholas and Charles B. Henry

Fire Bosses

George H. Deike and John A. Murray.

FOURTH DISTRICT

CLEARFIELD, JEFFERSON, ELK, ARMSTRONG, CLARION, CLINTON, CAMERON AND McKEAN COUNTIES

DuBois, Pa., February 15, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the requirements of the Bituminous Mine Law, I herewith transmit my annual report of the Fourth Bituminous District, for the year ending December 31, 1909.

There was an increase in production of 958,484 net tons over 1908 from the mines of the larger companies. Many of the smaller operations were idle during the entire year, while others worked little more than half time.

The usual statistical and descriptive matter is given in the body of the report.

Respectfully submitted,

ELIAS PHILLIPS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	78
Number of mines in operation,	64
Number of tons of coal shipped to market,	5,566,408
Number of tons used at mines for steam and heat,	191,833
Number of tons sold to local trade and used by employes,	28,395
Number of tons used in the manufacture of coke,	550,476
Number of tons of coal produced,	6,337,112
Number of tons of coke produced,	329,573
Number of coke ovens,	933
Number of coke ovens in operation,	933
Number of tons of coal produced by pick mining,	2,943,777
Number of tons produced by compressed air machines,	3,126,559
Number of tons produced by electrical machines,	266,776
Number of persons employed inside of mines,	7,871
Number of persons employed outside, including coke workers,	1,424
Number of persons employed at manufacture of coke,	235
Number of fatal accidents inside of mines,	14
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	47
Number of non-fatal accidents outside,	7
Number of tons of coal produced per fatal accident inside,	452,651
Number of persons employed per fatal accident inside	562
Number of persons employed per fatal accident outside,	712
Number of persons employed per non-fatal accident inside,	167
Number of persons employed per non-fatal accident outside,	203
Number of wives made widows,	10
Number of children made orphans,	28
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	16
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	80
Number of electric motors used outside	2
Number of fans in use,	43
Number of furnaces in use,	30
Number of gaseous mines in operation,	5
Number of non-gaseous mines in operation,	59
Number of new mines opened,	9
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Northwestern Mining and Exchange Company,	1,370,328
Shawmut Mining Company,	854,761
Jefferson and Clearfield Coal and Iron Company,	768,881
Buffalo and Susquehanna Coal Mining Company,	608,466
Rochester and Pittsburg Coal and Iron Company,	519,183
Cascade Coal and Coke Company,	367,852
Kettle Creek Coal Mining Company,	258,882
Jefferson Coal Company,	226,668
Fairmount Coal Company,	183,088
Allegheny River Mining Company,	167,645
Falls Creek Coal Company,	123,644
Rembrandt Peale,	113,306
Oak Ridge Mining Company,	112,758
Panther Run Coal Company,	94,952
Mahoning Coal Company,	93,062
Clearfield Colliery Company,	69,083
Dents Run Mining Company,	49,800
Wilson Coal and Coke Company,	43,390
M. Burns,	42,097
Penfield Coal Company,	34,554
Pilkington and Ellery,	28,974
Verstine-Hibbard and Company,	26,842
Penfield Colliery Company,	26,737
Samuel Wallwork,	23,568
Baldauf Coal and Coke Company,	19,671
F. A. Lane,	15,978
Hall and Kaul,	14,472
Harbison-Walker Refractories Company,	13,551
Stewart Coal Company,	12,100
Camp Run Mining Company,	11,096
Toby Coal Mining Company,	10,870
Avoine Coal and Coke Company,	10,404
Paradise Coal Mining Company,	10,360
Owens Mining Company,	6,075
Isaac Stage,	4,014
Total,	6,337,112

Production by Counties

Clearfield,	2,561,537
Jefferson,	1,929,853
Elk,	1,221,858
Armstrong,	295,846
Clinton,	258,882
Clarion,	69,136
Total,	6,337,112

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number em ployed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Northwestern Mining and Exchange Co.,	2	2	4	14	--------	14	685,164	97,881	1,703	216	1,919	851	108	122	--------
Shawmut Mining Co.,	2	--------	2	5	2	7	427,380	170,952	1,121	183	1,304	561	--------	224	91
Jefferson and Clearfield Coal and Iron Co.,	3	--------	3	1	1	2	256,294	768,881	746	313	1.059	249	--------	746	313
Buffalo and Susquehanna Coal Mining Co.,	3	--------	3	7	1	8	202,822	86,924	638	109	747	213	--------	91	109
Cascade Coal and Coke Co.,	1	--------	1	2	--------	2	367,852	183,926	447	170	617	447	--------	223	--------
Kettle Creek Coal Mining Co.,	--------	--------	--------	4	1	5	--------	64,720	304	55	359	--------	--------	76	55
Fairmount Coal Co.,	1	--------	1	2	--------	2	183,088	91,544	351	54	405	351	--------	175	--------
Allegheny River Mining Co.,	--------	--------	--------	1	2	3	--------	167,645	242	34	276	--------	--------	242	17
Falls Creek Coal Co.,	--------	--------	--------	3	--------	3	--------	41,215	158	19	177	--------	--------	53	--------
Rembrandt Peale,	1	--------	1	--------	--------	--------	113,306	--------	112	13	125	112	--------	--------	--------
Oak Ridge Mining Co.,	1	--------	1	--------	--------	--------	112,758	--------	159	38	197	159	--------	--------	--------
Mahoning Coal Co.,	--------	--------	--------	2	--------	2	--------	46,531	82	7	89	--------	--------	41	--------
Clearfield Colliery Co.,	--------	--------	--------	2	--------	2	--------	34,541	168	8	176	--------	--------	84	--------
Pilkington and Ellery,	--------	--------	--------	1	--------	1	--------	28,974	45	2	47	--------	--------	45	--------
Verstine-Hibbard and Co.,	--------	--------	--------	1	--------	1	--------	26,842	32	3	35	--------	--------	32	--------
Samuel Wallwork,	--------	--------	--------	1	--------	1	--------	23,568	38	6	44	--------	--------	38	--------
Hall and Kaul,	--------	--------	--------	1	--------	1	--------	14,472	40	2	42	--------	--------	40	--------
Miscellaneous Companies,	--------	--------	--------	--------	--------	--------	--------	--------	1,485	192	1,677	--------	--------	--------	--------
Totals and averages for district,	14	2	16	47	7	54	452,651	134,832	7,871	1,424	9,295	562	712	167	203

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	1	----	----	----	----	----	1	----	2	14.29
Falls of slate,	----	----	1	----	----	----	----	----	----	----	----	----	1	7.14
Falls of roof,	----	2	----	2	1	1	1	----	1	----	----	----	8	57.15
Mine cars,	----	----	----	----	----	1	----	----	----	----	----	----	1	7.14
Electricity,	1	----	----	----	----	----	----	----	----	----	----	----	1	7.14
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	----	1	1	7.14
Totals,	1	2	1	2	2	2	1	----	1	----	1	1	14	100.00
Causes of Accidents Outside														
Cars,	----	----	1	----	----	----	----	----	----	----	----	----	1	50.00
Miscellaneous,	----	----	----	1	----	----	----	----	----	----	----	----	1	50.00
Totals,	----	----	1	1	----	----	----	----	----	----	----	----	2	100.00
Grand totals inside and outside,	1	2	2	3	2	2	1	----	1	----	1	1	16	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	3	2	----	1	2	1	1	----	----	----	----	1	11	23.40
Falls of slate,	----	----	----	----	----	----	----	----	----	1	----	----	1	2.13
Falls of roof,	----	----	2	----	----	3	1	2	----	2	1	----	11	23.40
Mine cars,	3	1	2	----	1	----	1	1	----	2	2	2	15	31.92
Explosions of powder and dynamite,	----	----	----	2	----	----	----	----	----	----	----	----	2	4.26
Blasts, premature and otherwise,	----	----	----	----	----	1	----	----	3	----	----	----	4	8.51
Miscellaneous,	----	----	1	----	----	----	1	----	----	----	1	----	3	6.38
Totals,	6	3	5	3	3	5	4	3	3	5	4	3	47	100.00
Causes of Accidents Outside														
Cars,	----	----	1	1	----	----	----	1	----	----	2	1	6	85.71
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	1	----	1	14.29
Totals,	----	----	1	1	----	----	----	1	----	----	3	1	7	100.00
Grand totals inside and outside,	6	3	6	4	3	5	4	4	3	5	7	4	54	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	1	1	----	2	2	----	----	1	----	1	----	8
Machine runners,	----	----	----	----	----	----	1	----	----	----	----	1	2
Machine loaders,	1	----	----	1	----	----	----	----	----	----	----	----	2
Drivers and runners,	----	----	----	1	----	----	----	----	----	----	----	----	1
Company men,	----	1	----	----	----	----	----	----	----	----	----	----	1
Totals,	1	2	1	2	2	2	1	----	1	----	1	1	14
Outside													
Laborers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Car loaders,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	----	----	1	1	----	----	----	----	----	----	----	----	2
Grand totals inside and outside,	1	2	2	3	2	2	1	----	1	----	1	1	16

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	5	2	2	----	1	4	3	2	1	3	3	3	29
Machine loaders,	1	1	1	1	1	1	1	----	2	1	----	----	10
Machine scrapers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Drivers and runners,	----	----	----	----	----	----	----	----	----	1	1	----	2
Motormen,	----	----	1	1	1	----	----	----	----	----	----	----	3
Spraggers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Cagers,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	6	3	5	3	3	5	4	3	3	5	4	3	47
Outside													
Drivers and runners,	----	----	1	----	----	----	----	----	----	----	1	----	2
Tipplemen,	----	----	----	1	----	----	----	----	----	----	----	----	1
Laborers,	----	----	----	----	----	----	----	1	----	----	----	----	1
Engineers and firemen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Machine runners,	----	----	----	----	----	----	----	----	----	----	1	----	1
Motormen,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	----	1	1	----	----	----	1	----	----	3	1	7
Grand totals inside and outside,	6	3	6	4	3	5	4	4	3	5	7	4	54

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	1	1	----	----	----	----	1	----	----	----	3
Scotch,	----	----	----	1	1	----	----	----	----	----	----	----	2
Polish,	----	----	----	----	----	1	----	----	----	----	----	----	1
Italian,	----	----	1	1	----	----	1	----	----	----	1	----	4
Lithuanian,	1	1	----	----	----	----	----	----	----	----	----	----	2
Austrian,	----	----	----	----	----	1	----	----	----	----	----	1	2
Swedish,	----	1	----	----	1	----	----	----	----	----	----	----	2
Totals,	1	2	2	3	2	2	1	----	1	----	1	1	16

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	1	1	2	1	----	1	2	1	1	2	3	17
English,	----	----	1	----	----	----	----	1	----	1	----	----	3
Scotch,	----	----	----	----	1	----	----	----	----	----	----	----	1
Irish,	----	----	----	----	----	----	----	----	----	1	----	----	1
German,	----	----	----	----	----	----	----	----	----	----	1	----	1
Polish,	1	----	----	----	1	----	1	----	----	----	1	1	5
Hungarian,	----	----	----	----	----	1	1	----	----	----	----	----	2
Italian,	2	1	1	1	----	1	----	1	2	1	2	----	12
Slavonian,	1	----	----	----	----	----	----	----	----	----	----	----	1
Lithuanian,	----	----	1	1	----	1	1	----	----	----	----	----	4
Austrian,	----	1	----	----	----	1	----	----	----	1	----	----	3
Russian,	----	----	1	----	----	----	----	----	----	----	----	----	1
Swedish,	----	----	1	----	----	1	----	----	----	----	1	----	3
Totals,	6	3	6	4	3	5	4	4	3	5	7	4	54

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Northwestern Mining and Exchange Co.																
Eriton,	Shaft,	Gaseous,	Fan,	18	6	3.5	80	1.2	Capell,	Steam,		7	158,400	115,600	160,400	614
Dagus No. 1,	Drift,	Non-gas.,	Fan,	12.5	7	4.5	115	1.5	Capell,	Steam,		6	60,500	29,400	62,400	
Dagus No. 3,	Drift,	Non-gas.,	Fan,	17	4	5	65	.9	Murphy,	Steam,		2	29,400	19,200	30,250	670
Eureka,	Slope,	Non-gas.	2 Furnaces								70	3	28,400	21,000	28,940	
West Clarion No. 1,	Drift,	Non-gas.,	Fan,	6			140	1.9	Champion,	Electricity,		2	27,200	21,400	28,400	
West Clarion No. 6,	Drift,	Non-gas.,	Furnace,								32	2	26,400	19,400	27,100	266
West Clarion No. 8,	Drift,	Non-gas.,	Natural,									1	6,400	4,200	6,800	
Clarion No. 27,	Drift,	Non-gas.	2 Furnaces								72	1	29,000	19,400	29,200	153
Shawmut Mining Co.																
Shawmut No. 3,	Drift,	Non-gas.,	Furnace,									2	24,800	21,400	28,000	134
Shawmut No. 5,	Drift,	Non-gas.,	Fan,	16	4	3.5	80	1.2	Kinney,	Steam,		2	37,500	31,800	39,400	139
Shawmut No. 6,*	Slope,	Non-gas.,	Fan,	18	4.5	5			Brazil,	Steam,						
Shawmut No. 10,*	Drift,	Non-gas.,	Furnace,													
Byrne No. 21,	Drift,	Non-gas.,	Fan,	16	8	4.5	100	1.5	Capell,	Steam,		3	55,000	32,000	56,800	196
Elk No. 31,*	Drift,	Non-gas.,														
Cardiff No. 41,	Drift,	Non-gas.,	Fan,	16	8	4.5	100	1	Capell,	Steam,		4	95,600	34,600	96,750	232
Brown's Run No. 42,	Drift,	Non-gas.	2 Furnaces								72	3	29,000	18,400	33,600	122
Ramsay No. 1,	Drift,	Non-gas.,	Fan,	16	5	4.5	80	.6	Guibal,	Steam,		6	43,020	25,400	44,840	298

*Idle.

Jefferson and Clearfield Coal and Iron Co.																
Soldier Nos. 1 and 2,	Slope,	Non-gas.,	Fan,	20	6	6	52	1.2	Guibal,	Steam,		3	80,640	42,000	81,400	115
Soldier No. 3,	Drift,	Non-gas.,	Fan,	7	1.5	2.5	140	.3	Clark,	Compressed Air.		1	13,800	6,900	28,800	70
Soldier No. 4,	Drift,	Non-gas.,	Fan,	7	1.5	2.5	130	.2	Clark,	Compressed Air.		1	16,400	8,400	16,800	80
Soldier No. 5,	Shaft,	Gaseous,	Fan,	16	8	8	95	1.8	Capell,	Steam,		3	100,800	87,800	101,400	202
Trout Run No. 1,	Drift,	Non-gas.,	Fan,	16	8	7	85	1	Capell,	Steam,		2	96,000	48,000	97,800	229
Maplewood,	Drift,	Non-gas.,	Fan,	6	1.5	2.5	130	.2	Clark,	Compressed Air.		1	19,000	19,000	19,400	50
Buffalo and Susquehanna Coal Mining Co.																
DuBois No. 1,	Shaft,	Gaseous,	Fan,	25	6.5	6	68	2	Guibal,	Steam,		3	73,500	35,000	74,200	291
DuBois No. 2,	Shaft,	Gaseous,	Fan,	16	7	4.5	95	1	Capell,	Steam,		5	131,250	85,000	132,400	347
Rochester and Pittsburg Coal and Iron Co.																
Helvetia,	Slope,	Gaseous,	Fan,	25	6	4.5	68	1.8	Guibal,	Steam,		5	120,000	62,400	120,900	487
Stanley,	Shaft,	Gaseous,	Fan,	20	4	4.5	74	1.2								
Cascade Coal and Coke Co.																
Tyler No. 7,	Drift,	Non-gas.,	Fan,	7	1.5		300	.7	Stine,	Electricity,		4	55,600	43,400	60,400	447
Tyler No. 8,	Drift,	Non-gas.,	Fan,	6	1.5		200	.3	Stine,	Electricity,		2	22,500	16,050	23,240	
Kettle Creek Coal Mining Co.																
Kettle Creek No. 2,	Drift,	Non-gas.,	Fan,	16	6	3.5	80	.8	Vulcan,	Steam,		3	69,300	41,000	70,000	304
Kettle Creek No. 5,	Drift,	Non-gas.,	Furnace,								32	1	16,000	9,800	16,400	
Jefferson Coal Co.																
Coal Glen No. 1,	Drift,	Non-gas.,	Fan,	6	1.5				Stine,	Gasoline,		1	26,000	18,400	26,400	204
Coal Glen No. 2,	Drift,	Non-gas.,	Fan,	7	1.5				Stine,	Gasoline,		1	13,400	9,800	13,500	
Fairmount Coal Co.																
Fairmount No. 4,	Drift,	Non-gas.,	Furnace,								30	3	25,400	16,650	33,380	153
Fairmount No. 5,	Drift,	Non-gas.,	Fan,	8	1.5				Stine,	Steam,		1	16,100	16,100	16,840	87
Fairmount No. 6,	Drift,	Non-gas.,	Furnace,								32	1	19,200	19,200	19,600	70
Bostonia,	Drift,	Non-gas.,	Furnace,								20	1	6,800	6,800	7,200	41
Allegheny River Mining Co.																
Conifer Nos. 1 and 2,	Drifts,	Non-gas.,	Fan,	16	6	4.5	70	.4	Capell,	Steam,		2	58,950	28,400	60,200	242
Conifer No. 3,	Drift,	Non-gas.,	Fan,	16	4	3.5	50	.5	Brazil,	Steam,		3	62,400	25,950	62,500	

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Falls Creek Coal Co.																
Hopkins,	Drift,	Non-gas.,	Fan,	6	1.5	------	330	.5	Stine,	Steam,	----	2	30,000	16,200	30,400	158
Rembrandt Peale																
Bloomington No. 9,	Drift,	Non-gas.,	Fan,	10	1.8	------	220	.5	Stine,	Steam,	----	2	31,500	24,600	32,400	112
Oak Ridge Mining Co.																
Oak Ridge No. 6,	Drift,	Non-gas.,	Fan,	6	1.8	------	200	.2	Stine,	Steam,	----	1	28,200	28,200	29,050	72
Oak Ridge No. 7,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	----------	----------	24	1	18,900	18,900	19,200	30
Oak Ridge No. 8,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	----------	----------	12	1	7,000	7,000	7,100	57
Panther Run Coal Co.																
Panther Run,	Drift,	Non-gas.,	Fan,	16	6	4.5	100	1.4	Capell,	Steam,	----	3	53,000	32,200	55,400	153
Mahoning Coal Co.																
Mahoning,	Drift,	Non-gas.,	Fan,	6	1.5	------	200	.3	Stine,	Compressed Air.	----	1	14,800	14,800	16,000	82
Clearfield Colliery Co.																
Bloom No. 1,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	----------	----------	24	1	18,000	18,000	18,420	83
Caldwell No. 2,	Drift,	Non-gas.,	Fan,	7	1.8	------	250	------	Stine,	Steam,	----	1	25,000	25,000	26,400	85

Dents Run Mining Co.																
Dents Run No. 1,	Drift,	Non-gas.,	Fan,	7	1.8		250	.5	Stine,	Steam,		1	24,400	24,400	28,800	71
Dents Run No. 2,*	Drift,	Non-gas.,	Fan,	7	1.8				Stine,	Steam,						
Wilson Coal and Coke Co.																
Elss,	Drift,	Non-gas.,	Furnace,								12	1	5,240	5,240	6,000	58
M. Burns																
Penn No. 3,	Drift,	Non-gas.,	Furnace,								28	1	13,100	9,400	15,000	54
Coaldale No. 10,	Drift,	Non-gas.,	Furnace,								28	1	19,200	19,000	19,400	15
Penfield Coal Co.																
Penfield,	Drift,	Non-gas.,	Fan,	6	1.5		400	.5	Stine,	Electricity,		1	18,900	18,900	19,200	53
Pilkington and Ellery																
Coaldale No. 14,	Drift,	Non-gas.,	Furnace,								24	1	9,200	9,200	9,600	45
Verstine-Hibbard and Co.																
Anderson Run,	Drift,	Non-gas.,	Fan,	6	1.5		200	.3	Stine,	Steam,		1	6,000	6,000	6,800	32
Penfield Colliery Co.																
Coalville,	Drift,	Non-gas.,	Fan,	6	1.8		250		Stine,	Electricity,		1	23,200	20,000	24,000	41
Samuel Wallwork																
Carrier,	Drift,	Non-gas.,	Fan,	10	3		90	.4	Brazil,	Steam,		1	30,000	24,000	31,200	38
Baldauf Coal and Coke Co.																
Baldauf No. 1,*	Drift,	Non-gas.,	Furnace,								24	1				
Baldauf No. 2,	Drift,	Non-gas.,	Furnace,								36	1	10,400	8,000	12,000	41
F. A. Lane																
Lane,	Drift,	Non-gas.,	Furnace,								24	1	4,800	4,800	5,500	57
Hall and Kaul																
King,	Drift,	Non-gas.,	Furnace,								12	1	4,000	4,000	4,200	40
Harbison-Walker Refractories Co.																
Plane,	Drift,	Non-gas.,	Furnace,								30	1	4,500	4,500	4,800	21
Stewart Coal Co.																
Stewart No. 1,	Drift,	Non-gas.,	Natural,										4,840	4,840	5,400	37
Camp Run Mining Co.																
Camp Run,	Drift,	Non-gas.,	Furnace,								30	1	13,800	13,800	16,800	30

*Idle.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Toby Coal Mining Co.																
Black Diamond,†	Drift,	Non-gas.,	Furnace,								20	1				69
Avoine Coal and Coke Co.																
Avoine,	Drift,	Non-gas.,	Fan,	12	4	4	60	.3	Brazil,	Steam,		1	5,250	5,250	5,780	17
Paradise Coal Mining Co.																
Paradise No. 1,	Drift,	Non-gas.,	Furnace,								20	1	17,500	14,500	17,840	48
Owens Mining Co.																
Owens,	Shaft,	Non-gas.,	Furnace,								12	1	1,800	1,800	1,940	16
Isaac Stage																
Clearfield No. 10,	Drift,	Non-gas.,	Natural,										4,600	4,600	5,400	13
Emporium Iron Co.																
Mt. Hope,*	Drift,	Non-gas.,	Fan,	7	1.8											
Clermont Sewer Pipe Co.																
Lyman,*	Drift,	Non-gas.,	Fan,	6	1.5											

†Idle when visited.
*Idle.

Benscreek Coal and Coke Co.																
Carbon No. 1,*	Drift,	Non-gas.,	Furnace,													
Runaway Run Coal Co.																
Runaway Run,*	Drift,	Non-gas.,	Natural,													
Cobough Colliery Co.																
Cobough Nos. 1 and 2,*	Drifts,	Non-gas.,	Furnace,													
Cobough No. 3,*	Drift,	Non-gas.,	Fan,	3.5					Buffalo,	Steam,						
Clearfield Steel and Iron Co.																
Steel Plant Mine,*	Drift,	Non-gas.,	Furnace,								18					
Redbank Mining Co.																
Redbank,*	Drift,	Non-gas.,	Furnace,								24					
McKnight Coal Co.																
McKnight,*	Drift,	Non-gas.,														

*Idle.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Northwestern Mining and Exchange Co.	Eriton,	Shaft,	Gaseous,	47	Compressed Air,	D, or Lower Freeport,	69	84	54	657,057
	Dagus No. 1,	Slope,	Non-gas.,	1	Electricity,		38	46	30	4,742
	West Clarion Nos. 1 and 6,	Drifts,	Non-gas.,	5	Electricity,		41	44	38	44,096
Totals,				53						705,895
Shawmut Mining Co.,	Shawmut No. 5,	Drift,	Non-gas.,	8	Electricity,	B, or Lower Kittanning,	30	36	24	53,574
	Byrne No. 21,			30	Compressed Air,		40	44	36	70,764
	Ramsay No. 1,			12	Electricity,		44	56	32	143,893
Totals,				50						268,231
Jefferson and Clearfield Coal and Iron Co.	Soldier Nos. 1, 2, 3 and 5,	Drift,	Gaseous and Non-gas.,	37	Compressed Air,	D, or Lower Freeport,	66	84	48	339,623
		Slope,					66	76	56	6,410
		Shaft,					66	84	48	78,530
	Maplewood,	Drift,	Non-gas.,	2						
	Soldier No. 4,	Drift,	Non-gas.,	6						
	Trout Run No. 1,	Drift,	Non-gas.,	30			48	60	36	241,208
Totals,				75						665,771

Buffalo and Susquehanna Coal Mining Co.	DuBois No. 1,	Shaft,	Gaseous,	22	Compressed Air,	D, or Lower Freeport,	60	72	48	235,033
	DuBois No. 2,	Shaft,	Gaseous,	28			60	72	48	373,433
Totals,				50						608,466
Rochester and Pittsburg Coal and Iron Co.	Helvetia,	Slope,	Gaseous,	22	Compressed Air,	D, or Lower Freeport,	78	84	72	222,881
	Stanley,	Shaft,	Gaseous,	22			78	84	72	260,101
Totals,				44						482,982
Fairmount Coal Co.,	Fairmount No. 4,	Drift,	Non-gas.,	2	Electricity,	D, or Lower Freeport,	40	48	32	20,471
	Fairmount No. 5,	Drift,	Non-gas.,	14	Compressed Air,	B, or Lower Kittanning,	36	40	32	37,345
Totals,				16						57,816
Allegheny River Mining Co.,	Conifer Nos. 1, 2 and 3,	Drifts,	Non-gas.,	46	Compressed Air,	A, or Brookville,	48	60	36	167,645
Falls Creek Coal Co.,	Hopkins,	Drift,	Non-gas.,	14	Compressed Air,	D, or Lower Freeport,	63	72	54	123,644
Rembrandt Peale,	Bloomington No. 9,	Drift,	Non-gas.,	11	Compressed Air,	D, or Lower Freeport,	63	72	54	102,098
Oak Ridge Mining Co.,	Oak Ridge No. 6,	Drift,	Non-gas.,	5	Compressed Air,	E, or Upper Freeport,	42	48	36	5,094
Panther Run Coal Co.,	Panther Run,	Drift,	Non-gas.,	15	Compressed Air,	D, or Lower Freeport,	54	60	48	89,262
Mahoning Coal Co.,	Mahoning,	Drift,	Non-gas.,	7	Compressed Air,	D, or Lower Freeport,	60	84	36	93,062
Dents Run Mining Co.,	Dents Run No. 1,	Drift,	Non-gas.,	7	Compressed Air,	B, or Lower Kittanning,	36	36	36	8,369
Samuel Wallwork,	Carrier,	Drift,	Non-gas.,	2	Compressed Air,	A, or Brookville,	50	54	46	15,000
Grand totals,				395						3,393,335

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Northwestern Mining and Exchange Co.						
Eriton,	Clearfield,	John H. Fulford,	DuBois,	William K. Reed,	DuBois,	Erie
Dagus Nos. 1 and 3,	Elk,					
Eureka Slope,	Elk,					
Clarion No. 27,*	Elk,					
West Clarion Nos. 1, 6 and 8.*	Jefferson,					
Shawmut Mining Co.						
Shawmut Nos. 3, 5 6 and 10.	Elk,	George S. Ramsay,	St. Marys,	James Jones,	Shawmut,	P. S. and N.
Byrne No. 21,						
Elk No. 31,				Arthur White,	Byrnedale,	
Cardiff No. 41,						
Brown's Run No. 42,						
Ramsay No. 1,	Jefferson,			Hugh Reynolds,	Ramsaytown,	Brookville and Mahoning
Jefferson and Clearfield Coal and Iron Co.						
Soldier No. 1,	Jefferson,	John Reed,	Reynoldsville,	A. R. Ritchie,	Soldier,	B. R. and P.
Soldier No. 2,						
Soldier No. 3,						
Soldier No. 5,						
Maplewood,						
Trout Run No. 1,				Joseph Reed,	Wishaw,	
Soldier No. 4,						
Buffalo and Susquehanna Coal Mining Co.						
DuBois Nos. 1 and 2,	Clearfield,	C. P. Munch,	DuBois,	E. S. Crist, C. P. Munch,	DuBois,	Buffalo and Susquehanna
Rochester and Pittsburg Coal and Iron Co.						
Helvetia Slope,	Clearfield,	A. W. Calloway,	Punxsutawney,	I. J. Harvey,	Helvetia,	B. R. and P.
Stanley Shaft,						

*New mine.

Cascade Coal and Coke Co. Tyler Nos. 7 and 8,	Clearfield,	C. C. Gadd,	Sykesville,	W. E. Laverack,	Tyler,	Buffalo and Susquehanna
Kettle Creek Coal Mining Co. Kettle Creek Nos. 2 and 5,	Clinton,	George L. Miller,	Bitumen,	H. G. From,	Bitumen,	P. and E. Div. Penna., Susquehanna and Buffalo
Jefferson Coal Co. Coal Glen Nos. 1 and 2,	Jefferson,	Austin Blakeslee,	Coal Glen,	F. B. Blakeslee,	Coal Glen,	B. R. and P.
Fairmount Coal Co. Fairmount Nos. 4, 5 and 6.* Bostonia,	Armstrong,	E. C. Roberts,	Buffalo, N. Y.,	J. A. Beam,	New Bethlehem,	Pennsylvania
Allegheny River Mining Co. Conifer Nos. 1, 2 and 3,	Jefferson,	George S. Ramsay,	St. Marys,	Arnold Hirst,	Conifer,	Pittsburg and Shawmut
Falls Creek Coal Co. Hopkins,	Clearfield,	C. H. Polley,	Buffalo, N. Y.,	J. R. Axelson,	DuBois,	Penna.,—B. R. and P.
Rembrandt Peale Bloomington No. 9,	Jefferson,	Alexander Dunsmore,	St. Benedict,	A. M. Dunsmore,	St. Benedict,	B. R. and P.
Oak Ridge Mining Co. Oak Ridge No. 2,† Oak Ridge No. 6, Oak Ridge Nos. 7* and 8,*,	Armstrong,	Henry Williams,	Oak Ridge,	Henry Williams,	Oak Ridge,	Pennsylvania
Panther Run Coal Co. Panther Run,	Jefferson,			Henry Redding,	Pardus,	Pennsylvania
Mahoning Coal Co. Mahoning,	Clearfield,					B. R. and P.
Clearfield Colliery Co. Bloom No. 1, Caldwell No. 2,*	Clearfield,	A. W. Bigler,	Clearfield,	William Templeton, A. J. McHugh,	Clearfield, Curwensville,	B. R. and P. N. Y. C. and H. R.
Dents Run Mining Co. Dents Run Nos. 1 and 2,	Elk,	Henry Williams,	Oak Ridge,			Dents Run
Wilson Coal and Coke Co. Elss,	Clarion,	R. E. Heidrick,	Clarion,	W. E. Dayton,	Clarion,	P. S. and C.

*New mine.
†Abandoned.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
M. Burns Penn No. 3, Coaldale No. 10,	Clearfield,	M. Burns,	Brisbin,			Pennsylvania
Penfield Coal Co. Penfield,	Clearfield,	Austin Blakeslee,	DuBois,			Pennsylvania
Pilkington and Ellery Coaldale No. 14,*	Clearfield,			Fred Pilkington,	Grampian,	Pennsylvania
Verstine-Hibbard and Co. Anderson Run,	Jefferson,	F. L. Verstine,	Brookville,	J. N. Rech,	Reynoldsville,	Pennsylvania
Penfield Colliery Co. Coalville,	Elk,			James Maloney,	Weedville,	Pennsylvania
Samuel Wallwork Carrier,	Jefferson,			Samuel Wallwork,	Summerville,	Pennsylvania
Baldauf Coal and Coke Co. Baldauf No. 1,‡ Baldauf No. 2,	Clarion,	John H. Fink,	Punxsutawney,	J. M. Harvey,	Strattonville,	P. S. and C.
F. A. Lane Lane,	Jefferson,	F. A. Lane,	Lanes Mills,			B. R. and P.
Hall and Kaul King,*	Elk,			P. J. Fleming,	St. Marys,	P. S. and N.
Harbison-Walker Refractories Co. Plane,	Clearfield,	N. McQuillen,	Woodland,	John M. Baker,	Woodland,	N. Y. C. and H. R.
Stewart Coal Co. Stewart No. 1,*	Jefferson,			W. J. McAninch,	Knoxdale,	Pittsburg and Shawmut

*New mine.
‡Idle.

Camp Run Mining Co. Camp Run,	Jefferson,			J. P. Eddy,	Camp Run,	Pennsylvania
Toby Coal Mining Co. Black Diamond,	Jefferson,			John Aikman,	Brockwayville,	Erie
Avoine Coal and Coke Co. Avoine,	Jefferson,			J. J. Skehan,	Reynoldsville,	Pennsylvania
Paradise Coal Mining Co. Paradise No. 1,*	Jefferson,			Louis Wester,	Anita,	B. R. and P.
Owens Mining Co. Owens,	Clarion,			H. A. Underwood,	Strattonville,	P. S. and C.
Isaac Stage Clearfield No. 10,	Clearfield,			Clyde Stage,	Clearfield,	
Redbank Mining Co. Redbank,‡	Jefferson,					
Emporium Iron Co. Mt. Hope,‡	Cameron,					
Clermont Sewer Pipe Co. Lyman,‡	McKean,					
Benscreek Coal and Coke Co. Carbon No. 1,‡	Clearfield,					
Runaway Run Coal Co. Runaway Run,‡	Jefferson,					
Cobough Colliery Co. Cobough Nos. 1, 2 and 3,‡	Armstrong,	C. P. Munch,	DuBois,			
Clearfield Steel and Iron Co. Steel Plant Mine,‡	Clearfield,					
McKnight Coal Co. McKnight,‡	Jefferson,					
Coaldale Mining Co. Coaldale No. 11,†	Clearfield,					

*New mine.
†Abandoned.
‡Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Northwestern Mining and Exchange Co.																
Eriton,	Clearfield,	639,074	16,539	1,444	.....	657,057	.....	.....	260	694	1	9	92,500	2,175	.....	5
Dagus Nos. 1 and 3, and Eureka,	Elk,	421,611	10,478	2,481	.....	434,570	.....	.....	235	756	1	....	142,125	1,872	.....	35
West Clarion Nos. 1, 6 and 8,	Jefferson,	176,436	1,353	91	.....	177,880	.....	.....	225	293	2	5	52,000	200	.....	17
Clarion No. 27,	Elk,	99,960	214	647	.....	100,821	.....	.....	248	176	....	....	15,625	650	.....	23
Totals,		1,337,081	28,584	4,663	.....	1,370,328	.....	.....	.....	1,919	4	14	302,250	4,897	.....	80
Shawmut Mining Co.																
Shawmut No. 3,	Elk,	109,509	4,183	.....	.....	113,692	.....	.....	187	153	1	2	30,550	1,600	.....	21
Shawmut No. 5,	Elk,	96,298	3,439	290	.....	100,027	.....	.....	166	160	1	....	22,500	980	.....	.....
Byrne No. 21,	Elk,	125,723	3,722	6	.....	129,451	*18,178	100	155	260	....	1	76,000	4,000	.....	30
Cardiff No. 41,	Elk,	120,355	1,936	239	33,706	156,236	.....	.....	177	263	....	1	43,975	750	.....	47
Brown's Run No. 42,	Elk,	94,431	1,615	6	.....	96,052	.....	.....	174	139	....	....	37,500	3,000	.....	.....
Ramsay No. 1,	Jefferson,	251,416	3,103	4,784	.....	259,303	.....	.....	179	329	....	3	29,125	7,100	.....	17
Totals,		797,732	17,998	5,325	33,706	854,761	18,178	100	.....	1,304	2	7	239,650	17,430	.....	115

*Coal taken from Cardiff No. 41 Mine.

Jefferson and Clearfield Coal and Iron Co.																
Soldier Nos. 1, 2, 3 and 5,	Jefferson,	218,875	30,000	1,242	160,000	410,117	106,807	393	228	612	2	1	100,200		6,250	34
Maplewood,		23,103	600			23,703			82	55						3
Soldier No. 4,		77,030	1,500			78,530			199	92						
Trout Run No. 1,		241,208	15,000	523		256,531			217	300	1	1	50,375		2,000	
Totals,		560,216	47,100	1,565	160,000	768,881	106,807	393		1,059	3	2	150,575		8,250	37
Buffalo and Susquehanna Coal Mining Co.																
DuBois No. 1,	Clearfield,	209,850	24,000	1,183		235,033			238	341	2	6	45,975	4,623		21
DuBois No. 2,	Clearfield,	348,815	24,000	618		373,433			259	406	1	2	74,550	3,989		21
Totals,		558,665	48,000	1,801		608,466				747	3	8	120,525	8,612		42
Rochester and Pittsburg Coal and Iron Co.																
Helvetia Slope,	Clearfield,	505,527	6,054	2,251	5,351	519,183	3,395	40	230	558			80,000	8,100		19
Stanley Shaft,																
Cascade Coal and Coke Co.																
Tyler Nos. 7 and 8,	Clearfield,		14,698	1,735	351,419	367,852	201,193	400	281	617	1	2	56,675	2,957		8
Kettle Creek Coal Mining Co.																
Kettle Creek Nos. 2 and 5,	Clinton,	257,482	600	800		258,882			219	359		5	68,904	14,300		35
Jefferson Coal Co.																
Coal Glen Nos. 1 and 2,	Jefferson,	224,029	1,200	1,439		226,668			281	224			60,000	300		26
Fairmount Coal Co.																
Fairmount No. 4,	Armstrong,	103,591	1,235			104,826			237	185	1	1	31,250			14
Fairmount No. 5,		41,295	2,519			43,814			142	94		1	12,500			6
Fairmount No. 6,		14,830				14,830			185	80			3,750			5
Bostonia,		18,773		845		19,618			185	46			7,500			5
Totals,		178,489	3,754	845		183,088				405	1	2	55,000			30
Allegheny River Mining Co.																
Conifer Nos. 1, 2 and 3,	Jefferson,	161,595	5,759	291		167,645			153	276		3	41.900	3,000		39
Falls Creek Coal Co.																
Hopkins,	Clearfield,	121,603	2,041			123,644			202	177		3	19,900	300		14
Rembrandt Peale																
Bloomington No. 9,	Jefferson,	109,768	3,175	363		113,306			281	125	1		24,800	100		10
Oak Ridge Mining Co.																
Oak Ridge Nos. 6, 7 and 8,	Armstrong,	110,663	1,828	267		112,758			182	197	1		20,000	50		16

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Panther Run Coal Co.																
Panther Run,	Jefferson,	86,216	7,769	967		94,952			131	178			15,000	1,000		1
Mahoning Coal Co.																
Mahoning,	Clearfield,	93,062				93,062			262	89		2				7
Clearfield Colliery Co.																
Bloom No. 1,	Clearfield,	51,449		58		51,507			250	87		1	7,825			5
Caldwell No. 2,	Clearfield,	17,556	18	2		17,576			103	89		1	2,525			5
Totals,		69,005	18	60		69,083				176		2	10,350			10
Dents Run Mining Co.																
Dents Run No. 1,	Elk,	49,142	358	300		49,800			173	89			14,800	500		11
Wilson Coal and Coke Co.																
Elss,	Clarion,	42,950	368	72		43,390			297	64			500	50		4
M. Burns																
Penn No. 3,	Clearfield,	33,094				33,094			250	58			7,500			4
Coaldale No. 10,	Clearfield,	9,003				9,003			220	18			2,200			2
Totals,		42,097				42,097				76			9,700			6
Penfield Coal Co.																
Penfield,	Clearfield,	33,124	635	795		34,554			140	61						

Pilkington and Ellery Coaldale No. 14,	Clearfield,	28,859	65	50		28,974			195	47		1	9,000			4
Verstine-Hibbard and Co. Anderson Run,	Jefferson,	26,042	600	200		26,842			242	35		1				4
Penfield Colliery Co. Coalville,	Elk,	26,737				26,737			240	45			1,700	300		2
Samuel Wallwork Carrier,	Jefferson,	22,848	650	70		23,568			237	44		1	5,875			6
Baldauf Coal and Coke Co. Baldauf No. 2,	Clarion,	19,500	121	50		19,671			242	44			250			
F. A. Lane Lane,	Jefferson,	15,762	50	166		15,978			102	62			4,600	40		2
Hall and Kaul King,	Elk,	14,365		107		14,472			291	42		1				3
Harbison-Walker Refractories Co. Plane,	Clearfield,	13,461	90			13,551			229	24			6,775			2
Stewart Coal Co. Stewart No. 1,	Jefferson,	12,000		100		12,100			182	38						2
Camp Run Mining Co. Camp Run,	Jefferson,	11,054	42			11,096			213	32			6,615			2
Toby Coal Mining Co. Black Diamond,	Jefferson,	10,840	30			10,870			74	73			1,800	6		3
Avoine Coal and Coke Co. Avoine,	Jefferson,	10,404				10,404			91	19			154			2
Paradise Coal Mining Co. Paradise No. 1,	Jefferson,	10,090	196	74		10,360			74	59						1
Owens Mining Co. Owens,	Clarion,	6,000	50	25		6,075			154	17			100	100		1
Isaac Stage Clearfield No. 10,	Clearfield,			4,014		4,014			152	14			1,000			1
Grand totals,		5,566,408	191,833	28,395	550,476	6,337,112	329,573	933		9,295	16	54	1,328,398	62,042	8,250	545

TABLE 2—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Northwestern Mining and Exchange Co.,	Clearfield, Elk, Jefferson,			20	2,950	2,950	1		18	16	2,805	2	1,200	600	5	3
Shawmut Mining Co.,	Elk-Jefferson,			17	2,500	2,500	5		17	17	2,726	11	3,012	1,516	7	5
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,			40	5,130	5,130	6		13	6	1,700	8	15,300	3,275	4	11
Buffalo and Susquehanna Coal Mining Co.,	Clearfield,	3	600	10	1,900	2,500			4	11	2,185	6	9,200	3,900	3	5
Rochester and Pittsburg Coal and Iron Co.,	Clearfield,			20	2,600	2,600			8	10	2,320	3	4,500	3,000	2	4
Cascade Coal and Coke Co.,	Clearfield,			5	900	900			8	3	975				3	
Kettle Creek Coal Mining Co.,	Clinton,			4	410	410			6	5	470	4	1,900	500	3	1
Jefferson Coal Co.,	Jefferson,			2	200	200	1			1	30					
Fairmount Coal Co.,	Armstrong,			5	750	750	1			6	145				1	3
Allegheny River Mining Co.,	Jefferson,			8	1,200	1,200	1			8	1,138	5	700	300		4
Falls Creek Coal Co.,	Clearfield,			2	300	300				3	150					1
Rembrandt Peale,	Jefferson,			3	450	450				3	345					1
Oak Ridge Mining Co.,	Armstrong,			6	385	385				7	300	1	100	50		1
Panther Run Coal Co.,	Jefferson,			6	900	900			5		350	3	750	750	1	2
Mahoning Coal Co.,	Clearfield,			2	250	250				2	100	1	120	120		1
Clearfield Colliery Co.,	Clearfield,	1	30			30				1	30					
Dents Run Mining Co.,	Elk,			1	150	150				1	150					1
Wilson Coal and Coke Co.,	Clarion,			1	50	50				1	40	2	50	50		
Penfield Coal Co.,	Clearfield,			2	300	300			3		300				1	
Verstine-Hibbard and Co.,	Jefferson,			1	50	50										
Penfield Colliery Co.,	Elk,			1	30	30				1	40				1	
Samuel Wallwork,	Jefferson,			3	220	220										2

Avoine Coal and Coke Co.,	Jefferson,			1	35	35				1	15					
Paradise Coal Mining Co.,	Jefferson,						1				50					
Owens Mining Co.,	Clarion,			1	30	30				1	25					
Totals,		4	630	161	21,690	22,320	16		82	104	16,389	46	36,832	14,061	31	45

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Northwestern Mining and Exchange Co.,	Clearfield, Elk and Jefferson	10	1	4	873	31	517	30	72	1	117	47	1,703	3	3	46	22	----	11	131	216	1,919
Shawmut Mining Co.,	Elk-Jefferson,	6	6	----	656	30	251	28	84	15	26	19	1,121	2	4	23	21	28	5	100	183	1,304
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	6	----	2	61	22	483	22	50	22	64	14	746	2	2	16	44	90	----	159	313	1,059
Buffalo and Susquehanna Coal Mining Co.,	Clearfield,	2	----	7	------	42	403	42	51	9	43	39	638	1	2	12	23	----	4	67	109	747
Rochester and Pittsburg Coal and Iron Co.,	Clearfield,	1	2	4	142	20	214	20	16	12	46	10	487	1	----	5	12	12	1	40	71	558
Cascade Coal and Coke Co.,	Clearfield,	2	1	----	395	------	------	------	18	5	15	11	447	1	2	9	7	105	3	43	170	617
Kettle Creek Coal Mining Co.,	Clinton,	1	----	----	250	------	------	------	22	8	23	------	304	1	1	6	6	----	1	40	55	359
Jefferson Coal Co.,	Jefferson,	1	----	----	185	------	------	------	12	------	6	------	204	1	1	3	3	----	1	11	20	224
Fairmount Coal Co.,	Armstrong,	4	----	----	205	10	67	10	30	7	2	16	351	1	1	9	5	----	2	36	54	405
Allegheny River Mining Co.,	Jefferson,	2	----	----	------	25	161	25	19	2	8	------	242	1	----	6	6	----	1	20	34	276
Falls Creek Coal Co.,	Clearfield,	1	----	----	------	7	116	7	14	3	4	6	158	1	----	2	3	----	3	10	19	177
Rembrandt Peale,	Jefferson,	1	----	----	12	------	80	------	7	1	------	11	112	1	----	1	3	----	1	7	13	125
Oak Ridge Mining Co.,	Armstrong,	3	2	----	108	5	14	5	12	5	5	------	159	1	2	4	4	----	2	25	38	197
Panther Run Coal Co.,	Jefferson,	1	----	----	10	6	111	6	8	5	6	------	153	1	----	4	6	----	2	12	25	178
Mahoning Coal Co.,	Clearfield,	1	----	----	50	1	17	1	5	2	5	------	82	----	----	1	2	----	----	4	7	89
Clearfield Colliery Co.,	Clearfield,	2	----	----	155	------	------	------	6	3	2	------	168	----	----	2	----	----	----	6	8	176
Dents Run Mining Co.,	Elk,	1	----	----	56	4	4	------	5	1	------	------	71	----	----	1	1	----	1	15	18	89
Wilson Coal and Coke Co.,	Clarion,	1	1	----	50	------	------	------	3	------	1	2	58	1	----	----	1	----	----	4	6	64
M. Burns,	Clearfield,	2	----	----	62	------	------	------	3	------	2	------	69	2	----	1	----	----	2	2	7	76
Penfield Coal Co.,	Clearfield,	1	----	----	47	------	------	------	3	------	2	------	53	----	----	1	2	----	1	4	8	61

Pilkington and Ellery,	Clearfield,	1			41				2		1		45		1	1					2	47
Verstine-Hibbard and Co.,	Clearfield,	1			20				3	1	5	2	32			1	1		1		3	35
Penfield Colliery Co.,	Elk,	1			30				2			8	41	1		1	1		1		4	45
Samuel Wallwork,	Jefferson,	1			16	2	14	2	3				38			1	1		1	3	6	44
Baldauf Coal and Coke Co.,	Clarion,	1	1		35				3		1		41	1						2	3	44
F. A. Lane,	Jefferson,	1			53				2		1		57	1		1			1	2	5	62
Hall and Kaul,	Elk,	1			37				2				40			1				1	2	42
Harbison-Walker Refractories Co.,	Clearfield,	1			19				1				21	1					1	1	3	24
Stewart Coal Co.,	Jefferson,	1			30				2	1	3		37						1		1	38
Camp Run Mining Co.,	Jefferson,	1			27				2				30			1				1	2	32
Toby Coal Mining Co.,	Jefferson,	1			65				3				69							4	4	73
Avoine Coal and Coke Co.,	Jefferson,	1			15				1				17						1	1	2	19
Paradise Coal Mining Co.,	Jefferson,	1			44				1		2		48						1	4	11	59
Owens Mining Co.,	Clarion,				15				1				16								1	17
Isaac Stage,	Clearfield,	1			11				1				13							1	1	14
Totals,		63	14	17	3,775	205	2,452	198	409	103	390	185	7,871	27	20	161	176	235	49	756	1,424	9,295

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Northwestern Mining and Exchange Co.,	Clearfield, Elk, Jefferson,	21	19	19	19	22	24	17	20	19	19	24	21	244
Shawmut Mining Co.,	Elk, Jefferson,	9	9	12	10	10	14	12	16	17	18	23	23	173
Jefferson and Clearfield Coal and Iron Co.,	Jefferson,	12	9	12	12	13	12	13	12	16	22	23	26	182
Buffalo and Susquehanna Coal Mining Co.,	Clearfield,	23	22	22	16	21	21	21	19	19	22	21	22	249
Rochester and Pittsburg Coal and Iron Co.,	Clearfield,	9	14	15	14	17	20	20	20	25	26	24	26	230
Cascade Coal and Coke Co.,	Clearfield,	23	22	27	20	20	26	25	22	25	21	25	25	281
Kettle Creek Coal Mining Co.,	Clinton,	19	17	24	15	13	15	18	12	17	21	23	25	219
Jefferson Coal Co.,	Jefferson,	24	22	24	23	24	24	23	25	24	22	23	23	281
Fairmount Coal Co.,	Armstrong,	23	18	18	12	8	5	11	10	18	19	20	26	188
Allegheny River Mining Co.,	Jefferson,	14	11	13	10	9	8	8	12	12	10	21	25	153
Falls Creek Coal Co.,	Clearfield,	16	13	14	14	15	13	16	13	15	24	24	25	202
Rembrandt Peale,	Jefferson,	24	22	24	21	19	22	25	24	23	27	23	27	281
Oak Ridge Mining Co.,	Armstrong,	17	14	23	8	8	10	10	10	13	20	23	26	182
Panther Run Coal Co.,	Jefferson,	11	4	6	6	10	8	7	8	10	14	22	25	131
Mahoning Coal Co.,	Clearfield,	22	15	22	22	20	23	23	20	24	24	24	23	262
Clearfield Colliery Co.,	Clearfield,	12	12	13	------	------	12	13	16	23	25	25	26	177
Dents Run Mining Co.,	Elk,	21	17	16	9	10	11	11	9	12	13	20	24	173
Wilson Coal and Coke Co.,	Clarion,	26	20	26	26	25	25	24	24	25	26	25	25	297
M. Burns,	Clearfield,	17	20	21	17	19	21	19	22	21	21	17	20	235
Penfield Coal Co.,	Clearfield,	11	10	7	9	9	12	10	11	10	16	16	19	140
Pilkington and Ellery,	Clearfield,	25	24	25	6	------	------	15	23	25	16	17	19	195
Verstine-Hibbard and Co.,	Jefferson,	12	21	20	14	16	14	20	24	24	25	26	26	242
Penfield Colliery Co.,	Elk,	20	20	20	20	20	20	20	20	20	20	20	20	240
Samuel Wallwork,	Jefferson,	22	20	25	25	22	20	15	12	15	15	22	24	237
Baldauf Coal and Coke Co.,	Clarion,	------	------	27	25	26	26	27	26	18	16	26	25	242
F. A. Lane,	Jefferson,	13	8	8	4	7	8	10	9	9	5	7	14	102
Hall and Kaul,	Elk,	25	20	24	24	23	24	26	24	25	26	25	25	291

Harbison-Walker Refractories Co.,	Clearfield,	15	19	20	19	19	19	17	20	16	21	23	21	229
Stewart Coal Co.,	Jefferson,	------	------	------	6	15	15	20	25	24	26	25	26	182
Camp Run Mining Co.,	Jefferson,	19	20	19	22	24	21	14	13	16	15	12	18	213
Toby Coal Mining Co.,	Jefferson,	22	23	23	------	------	------	------	------	------	------	4	2	74
Avoine Coal and Coke Co.,	Jefferson,	7	6	5	5	2	------	6	3	3	10	20	24	91
Paradise Coal Mining Co.,	Jefferson,	------	------	------	------	------	------	------	------	10	20	24	20	74
Owens Mining Co.,	Clarion,	23	14	5	------	------	------	------	22	21	25	21	23	154
Isaac Stage,	Clearfield,	10	10	16	21	14	4	------	------	10	23	21	23	152

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 6	Simon Mitchell,	Lithuanian,	Loader,	32	S.			DuBois No. 1,	Clearfield,	Instantly killed. Was electrocuted by coming in contact with a trolley wire carrying 500 volts. The accident occurred in the mine while the victim was trying to get into an empty trip of cars at an unusual point on the side track. His neck came in contact while he had his hands on the cars.
Feb. 20	Sigfried Johnson,	Swedish,	Miner,	31	M.	1	1	Eureka Slope,	Elk,	Instantly killed by fall of roof in an entry at night. After firing two shots in the coal he returned to make an examination, when the roof fell. The roof was of a dangerous character.
23	George Tolasky,	Lithuanian,	Timberman,	42	M.	1	4	DuBois No. 1,	Clearfield,	Fatally injured by fall of roof while timbering on a side track on one of the side entries. The roof was of a dangerous nature and while placing one of the timbers a section of it fell.
March 23	oseph Petrock,	Italian,	Miner,	44	M.	1	1	Soldier No. 3,	Jefferson,	Instantly killed by fall of slate while working in an entry that was being driven along the side of a rock fault. Did not use sufficient timber for safety under the conditions.
31	James Alsbaugh,	American,	Car loader,	21	S.			Eriton,	Clearfield,	Fatally injured by being crushed between railroad cars. He was dropping three loaded cars by gravity below the scale house and, in attempting to make a coupling, he miscalculated the time and distance and was caught between the bumpers. Outside.
April 2	Joseph Angelo,	Italian,	Loader,	38	M.	1	3	Trout Run No. 1,	Jefferson,	Fatally injured by fall of roof in his working place while repairing the track.

April	13	Lawrence Lucore,	American,	Laborer,	19	S.			West Clarion No. 8,	Jefferson,	Fatally injured by being struck on the head by the handle of a windlass that had been used to hoist the material out of the air shaft. The few men at work in the mine were being hoisted by the windlass when the accident occurred. Lucore walked home and his injury was not considered dangerous. Outside.
	19	Charles Forrest,	Scotch,	Driver,	32	M.	1	4	DuBois No. 2,	Clearfield,	Fatally injured by fall of roof while bringing a loaded car out of a room. The car caught one of the props knocking it out, allowing the roof to fall, a part of which caught Forrest, who was walking at the rear end of the car.
May	8	Herman Ostland,	Swedish,	Miner,	41	M.	1	1	Shawmut No. 3,	Elk,	Fatally injured by fall of roof in his working place.
	11	Joseph Carnduff,	Scotch,	Miner,	33	S.			Bloomington No. 9.	Jefferson,	Fatally injured by fall of coal while working on pillars with a punching machine. He was undermining a stump of coal and, leaving no support, it fell on him. He had been ordered to mine the stump out by hand, but disobeyed orders.
June	5	George Vochinski,	Polish,	Miner,	48	M.	1	1	Tyler No. 8,	Clearfield,	Fatally crushed by mine cars in the mine. While sitting in front of a car, waiting for the trip to pass, the car started and he was caught between the car and pillar.
	28	Joseph Cornelius,	Austrian,	Miner,	45	S.			Fairmount No. 4,	Armstrong,	Fatally injured by a fall of roof. He was mining out a stump of coal in an abandoned place when the roof fell, striking him on the head.
July	24	Angelo Regeno,	Italian,	Machine runner.	39	M.	1	4	Soldier No. 3,	Jefferson,	Fatally injured by fall of roof while undercutting his room with a compressed air punching machine. The roof was dangerous.
Sept.	17	George Reed,	American,	Miner,	33	M.	1	3	Oak Ridge No. 6,	Armstrong,	Instantly killed by fall of roof while drawing out a room pillar. He fired a blast in the coal and was loading a car, when the roof fell from a dangerous slip, catching his head and shoulders over the car.
Nov.	30	Rocco Clemento,	Italian,	Miner,	35	M.	1	6	West Clarion No. 1.	Jefferson,	Instantly killed by fall of coal while undermining a coal stump that had been left for the purpose of supporting the roof in an abandoned place.

TABLE 4 —Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 14	Joseph Martini, ...	Austrian, ..	Machine runner.	23	S.	....	....	Shawmut No. 5, ..	Elk, ...	Instantly killed on an electric chain machine. He was riding on the front end of the machine coming out of a room, when in some manner his body was forced over the machine and against the roof, crushing out his life.

TABLE 5—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 11	Thomas Kennan,	American,	Miner,	27	S.	Eriton,	Clearfield,	Foot severely injured by fall of coal at face of entry.
12	Thomas Vaclavik,	Polish,	Miner,	20	S.	Kettle Creek No. 2,	Clinton,	Leg fractured by fall of coal at face of room.
18	Mike Scorcett,	Italian,	Miner,	22	S.	Mahoning,	Clearfield,	Arm broken by mine cars on haulage road.
21	Mike Morea,	Italian,	Loader,	24	S.	Soldier No. 5,	Jefferson,	Leg broken by fall of coal at face of room.
27	Thomas Walker,	American,	Miner,	21	S.	Fairmount No. 5,	Armstrong,	Leg broken by mine cars on haulage road.
28	Andrew Hydick,	Slavonian,	Miner,	38	M.	Bloom No. 1,	Clearfield,	Back and ribs broken by mine cars on haulage road.
Feb. 10	James Williams,	American,	Miner,	26	S.	DuBois No. 1,	Clearfield,	Arms and legs severely injured by fall of coal at face of room.
24	John Poinellia,	Italian,	Miner,	17	S.	Shawmut No. 3,	Elk,	Leg broken by fall of coal while robbing a pillar.
25	Frank Demijohn,	Austrian,	Loader,	28	S.	Eriton,	Clearfield,	Severely injured by mine cars on entry.
March 9	Andrew Bogreen,	Swedish,	Miner boss,	28	M.	Coaldale No. 14,	Clearfield,	Leg broken by fall of roof at face of room.
10	George S. Howe,	English,	Motorman,	37	S.	Eriton,	Clearfield,	Compound fracture of leg by mine cars on haulage road.
15	Charles Burkavish,	Lithuanian,	Miner,	48	M.	DuBois No. 1,	Clearfield,	Ankle dislocated and back injured by fall of roof at face of room.
16	Domenico Pope,	Italian,	Loader,	18	S.	Eriton,	Clearfield,	Leg broken by falling timber at foot of shaft.
20	John Jern,	Russian,	Runner,	33	M.	Kettle Creek No. 2,	Clinton,	Ribs broken and injured internally by mine cars. Outside.
25	Ray Hoover,	American,	Spragger,	18	S.	Eriton,	Clearfield,	Body severely injured by mine cars on entry.
April 3	Grant Harvey,	American,	Motorman,	23	M.	DuBois No. 1,	Clearfield,	Both severely injured by powder flame, ignited by electric spark on haulage road.
3	Joseph Andrewkavish,	Lithuanian,	Loader,	38	M.			

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April	14	Peter Siveny,	American,	Scraper,	18	S.	Mahoning,	Clearfield,	Leg broken by fall of coal at face of room.
	15	A. F. Mowery,	American,	Tipple-man,	38	M.	Conifer No. 3,	Jefferson,	Leg crushed by mine cars. Outside.
May	6	Frank Boyens,	Polish,	Loader,	32	M.	DuBois No. 2,	Clearfield,	Leg crushed by fall of coal while robbing pillar.
	6	Peter White,	Scotch,	Motor-boss,	34	M.	Eriton,	Clearfield,	Compound fracture of leg by mine cars on haulage road.
	11	Robert Smart,	American,	Miner,	20	S.	Tyler No. 7,	Clearfield,	Collar bone broken by fall of coal at face of room.
June	2	William Smith,	Lithuanian,	Loader,	28	M.	Hopkins,	Clearfield,	Ankle crushed by fall of roof at face of room.
	8	Cosino Weido,	Italian,	Miner,	44	M.	Cardiff No. 41,	Elk,	Leg broken and spine injured by fall of roof at face of entry.
	12	Idof Anderson,	Swedish,	Miner,	27	S.	Kettle Creek No. 2,	Clinton,	Leg broken by fall of roof at face of room.
	22	Attillis Bissate,	Austrian,	Miner,	33	S.	West Clarion,	Jefferson,	Face burned and right eye blown out by premature blast at face of entry.
	24	Andrew Regis,	Hungarian,	Miner,	36	M.	Kettle Creek,	Clinton,	Collar bone broken by fall of coal at face of entry.
July	1	Thomas Gogenus,	Lithuanian,	Loader,	25	M.	DuBois No. 1,	Clearfield,	Left eye severely injured by being struck by machine pick at face of room.
	3	George Powell,	American,	Miner,	46	M.	Carrier,	Jefferson,	Leg broken by fall of coal at face of room.
	10	Fedak Vasel,	Hungarian,	Miner,	36	M.	Kettle Creek,	Clinton,	Collar bone and ribs broken by mine cars near face of room.
	29	Samuel Bozaka,	Polish,	Miner,	20	S.	Tyler No. 7,	Clearfield,	Body severely injured by fall of roof at face of room.
Aug.	18	Joseph Esposite,	Italian,	Miner,	18	S.	West Clarion,	Jefferson,	Hip bone broken by fall of roof at face of room.
	24	W. J. Harvey,	English,	Cager,	35	M.	DuBois No. 1,	Clearfield,	Foot crushed by being caught between car and cage at foot of shaft.

Aug.	27	James Horner,	Italian,	Miner,	50	M.	Anderson Run,	Jefferson,	Spine injured by fall of roof at face of room.
	30	Joel Himes,	American,	Laborer,	56	M.	Ramsay No. 1,	Jefferson,	Both legs cut off by railroad cars. Outside.
Sept.	11	Joseph Paslock,	Italian,	Loader,	38	M.	Hopkins,	Clearfield,	Severely burned and bruised by premature blast at face of room.
	11	James Pristilo,	Italian,	Loader,	22	S.			
	25	Joseph M. Troutman,	American,	Miner,	37	M.	Fairmount No. 4,	Armstrong,	Severely injured by blast in coal on haulage road.
Oct.	4	Hugh McGinnes,	Irish,	Miner,	54	S.	King,	Elk,	Leg and arm fractured by fall of roof while robbing a pillar.
	7	Clyde Young,	American,	Driver,	17	S.	West Clarion,	Jefferson,	Leg broken by mine cars on entry.
	9	Mike Guido,	Italian,	Miner,	30	M.	Shawmut No. 3,	Elk,	Injured internally by fall of slate while robbing a pillar.
	13	Joseph Harrison,	English,	Loader,	49	M.	Eriton,	Clearfield,	Leg broken by mine cars on entry.
	25	George Powlitch,	Austrian,	Miner,	22	S.	Ramsay No. 1,	Jefferson,	Skull and one leg fractured by fall of roof at face of room.
Nov.	10	Fred Kreidler,	American,	Driver,	23	S.	Conifer No. 1,	Jefferson,	Hand severely crushed by mine cars. Outside.
	10	Dominic Sherti,	Italian,	Miner,	36	M.	Conifer No. 1,	Jefferson,	Shoulder dislocated by being crushed between cars and coal pillar on main entry.
	11	Andrew Sorovich,	Polish,	Miner,	27	S.	Eriton,	Clearfield,	Collar bone broken by mine cars on entry.
	12	William Bierly,	German,	Fireman,	43	M.	DuBois No. 2,	Clearfield,	Arm broken and hip severely bruised by falling from top of boilers. Outside.
	12	John Perman,	Swedish,	Miner,	32	M.	West Clarion,	Jefferson,	Ankle broken by fall of roof at face of room.
	17	Glen Geer,	American,	Driver,	26	M.	Ramsay No. 1,	Jefferson,	Leg broken by being struck by steel T rail on entry.
	18	Antonia Long,	Italian,	Cutter,	25	S.	Byrne No. 21,	Elk,	Both legs broken by being struck by machine board against car. Outside.
Dec.	1	Alexander Godlesky,	Polish,	Miner,	42	M.	Eriton,	Clearfield,	Hip dislocated by mine cars on entry.
	1	John H. Bloom,	American,	Miner,	37	M.	Caldwell No. 2,	Clearfield,	Collar bone broken by fall of coal at face of room.
	16	William Brownley,	American,	Miner,	55	M.	West Clarion,	Jefferson,	Collar bone broken by mine cars on main entry.
	28	William Harmon,	American,	Motorman,	21	S.	Trout Run No. 1,	Jefferson,	Leg crushed between two motors. Outside.

CONDITION OF MINES

NORTHWESTERN MINING AND EXCHANGE COMPANY

Eriton.—In good condition as to ventilation and drainage. Marsh gas was being produced in one section of the mine, and safety lamps were requested to be used in that section. The mine has been operated steadily day and night during the year, employing a large number of persons and producing nearly one-half the total tonnage of this company.

Dagus No. 1.—In good condition as to ventilation and drainage.

Dagus No. 3.—In very good condition.

Eureka Slope.—In fair condition as to ventilation. The drainage needed some improvement.

West Clarion No. 1.—In fair condition as to ventilation and drainage.

West Clarion No. 6.—Ventilation in fair volume; drainage very good.

West Clarion No. 8.—A new mine. In fair condition.

Clarion No. 27.—In fair condition as to ventilation; drainage defective.

SHAWMUT MINING COMPANY

Shawmut No. 3.—In fair condition.

Shawmut No. 5.—In good condition.

Shawmut Nos. 6 and 10.—Idle during the entire year.

Byrne No. 21.—One section of the mine was insufficiently ventilated, but other parts were satisfactory. The drainage was good.

Cardiff No. 41.—In fair condition. The ventilation and drainage needed some improvement.

Brown's Run No. 42.—In fair condition as to ventilation and drainage.

Ramsay No. 1.—In good condition, except in the No. 2 section, where the ventilation needed attention.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Soldier Nos. 1 and 2.—In good condition as to ventilation and drainage. Mining is done entirely from pillars.

Soldier No. 3.—In fair condition as to ventilation and drainage.

Soldier No. 4.—In fair condition. Mining is done entirely from pillars.

Soldier No. 5.—This mine is ventilated by strong and vigorous currents of air. The drainage at points was not very good. Two sections of the mine produce marsh gas, and in those sections safety lamps are used.

Trout Run No. 1.—In very fair condition on each examination.

Maplewood.—Idle almost the entire year. In good condition when last inspected.

BUFFALO AND SUSQUEHANNA COAL MINING COMPANY

DuBois No. 1.—In good condition on each inspection. Safety lamps continue to be used beyond the fire boss stations. Although there is no marsh gas, these lamps are a safeguard and the mine atmosphere is more healthful than if open lights were used.

DuBois No. 2.—Well ventilated and in healthful condition.

ROCHESTER AND PITTSBURG COAL AND IRON COMPANY

Helvetia Slope and Stanley Shaft.—In good condition.

CASCADE COAL AND COKE COMPANY

Tyler Nos. 7 and 8.—In good condition.

KETTLE CREEK COAL MINING COMPANY

Kettle Creek Nos. 2 and 5.—In good condition.

JEFFERSON COAL COMPANY

Coal Glen Nos. 1 and 2.—In very fair condition.

FAIRMOUNT COAL COMPANY

Fairmount Nos. 3 and 4.—The ventilation has not been in satisfactory condition, but some improvement was found in it during the latter part of the year. The drainage was good.

Fairmount No. 5.—This mine has not been operated very much during the year. It has not been in satisfactory condition as to ventilation, and some action was about to be taken to have the law complied with when the mine was closed down. A fan is being built for this mine and I understand will be erected soon.

Fairmount No. 6.—A new drift mine into the lower Freeport seam. It is ventilated by a furnace and was found in good condition as to health and safety.

Bostonia.—Cannel coal is being mined from this mine, and but few persons are employed. In very fair condition.

ALLEGHENY RIVER MINING COMPANY

Conifer Nos. 1, 2 and 3.—In good condition as to health and safety.

REMBRANDT PEALE

Bloomington No. 9.—In very fair condition. It will soon be worked out. The main entry pillars are being removed.

FALLS CREEK COAL COMPANY

Hopkins.—In good condition as to ventilation and drainage.

OAK RIDGE MINING COMPANY

Oak Ridge Nos. 2, 6, 7 and 8.—The No. 2 mine was worked out and abandoned. No. 6 mine has been kept in good condition. The Nos.

7 and 8 are new openings. The Lower Freeport seam is being mined in the No. 7, and the B or Lower Kittanning in the No. 8 mine. The No. 7 mine is in good condition, but the No. 8 is in only fair condition.

PANTHER RUN COAL COMPANY

Panther Run.—In good condition.

MAHONING COAL COMPANY

Mahoning.—In good condition as to health and safety.

CLEARFIELD COLLIERY COMPANY

Bloom No. 1.—In good condition.

Caldwell No. 2.—A new drift mine into the D or Lower Freeport seam of coal. It is ventilated by a fan and is in good condition.

DENTS RUN MINING COMPANY

Dents Run No. 1.—In good condition as to health and safety.

Dents Run No. 2.—Not in operation during the year.

WILSON COAL AND COKE COMPANY

Elss.—In fair condition as to ventilation; drainage very defective.

M. BURNS

Penn No. 3.—In fair condition. One section of the mine has been worked out.

Coaldale No. 10.—In very fair condition. Only a few persons are employed.

PENFIELD COAL COMPANY

Penfield.—In good condition as to health and safety.

PILKINGTON AND ELLERY

(Formerly Coaldale Mining Company)

Coaldale No. 11.—Worked out and abandoned by former company.

Coaldale No. 14.—Opened during the year. It is being operated by the present owners. It is in good condition for a new mine.

SAMUEL WALLWORK

Carrier.—In good condition as to health and safety.

BALDAUF COAL AND COKE COMPANY

Baldauf No. 1.—Idle the entire year.

Baldauf No. 2.—In very fair condition as to ventilation and drainage.

HARBISON-WALKER REFRACTORIES COMPANY

Plane.—In very fair condition. The ventilation and drainage need improvement in one section of the mine.

F. A. LANE

Lane.—In good condition.

PENFIELD COLLIERY COMPANY

Coalville.—In very fair condition.

CAMP RUN MINING COMPANY

Camp Run.—In fair condition.

STEWART COAL COMPANY

Stewart No. 1.—A new drift mine where the B or Lower Kittanning seam is being mined. No artificial means was being used to ventilate the mine and no second means of egress was provided, all of which has been requested.

VERSTINE-HIBBARD AND COMPANY

Anderson Run.—In very fair condition as to ventilation and drainage.

TOBY COAL MINING COMPANY

Black Diamond.—In good condition. Idle the greater part of the year.

AVOINE COAL AND COKE COMPANY

Avoine.—In good condition. Only a few persons have been employed.

OWENS MINING COMPANY

Owens.—In fair condition.

PARADISE COAL MINING COMPANY

Paradise No. 1.—This is a new drift mine into the D or Lower Freeport seam. The workings were in very fair condition.

ISAAC STAGE

Clearfield No. 10.—In very fair condition. Idle the greater part of the year.

HALL AND KAUL

King.—A new drift mine into the D or Lower Freeport seam. In very fair condition.

COBOUGH COLLIERY COMPANY

Cobough Nos. 1, 2 and 3.—Not in operation during the year.

CLEARFIELD STEEL AND IRON COMPANY

Steel Plant Mine.—Idle the entire year.

REDBANK MINING COMPANY

Redbank.—Idle the entire year.

EMPORIUM IRON COMPANY

Mt. Hope.—Idle the entire year.

CLERMONT SEWER PIPE COMPANY

Lyman.—Idle the entire year.

BENSCREEK COAL AND COKE COMPANY

Carbon No. 1.—Idle the entire year.

RUNAWAY RUN COAL COMPANY

Runaway Run.—Operated but very little during the year. Did not come under the provisions of the law.

McKNIGHT COAL COMPANY

McKnight.—Idle the entire year.

IMPROVEMENTS

SHAWMUT MINING COMPANY

In the Cardiff No. 41 and Byrne No. 21 mines, 12 concrete stoppings were built to displace those built of wood used in conducting the air currents to the working faces.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

The tipple and derrick over Soldier No. 5 (Sykes Shaft) mine were practically rebuilt.

BUFFALO AND SUSQUEHANNA COAL MINING COMPANY

In the DuBois No. 1 shaft, four new concrete stoppings were built to displace those built of wood, also two masonry overcasts. In the DuBois No. 2 mine a new pump room was made and arched with brick, and additional pumps were placed to increase the capacity for drainage. The shaft bottom was also being re-timbered, using steel I beams for cross bars.

ROCHESTER AND PITTSBURG COAL AND IRON COMPANY

Electrically driven pumps have been installed to displace the steam pumps used formerly in delivering the mine water to the surface. This change in power is a decided improvement, as it dispenses with the steam pipes that created much heat in the mine.

JEFFERSON COAL COMPANY

An air shaft, 8 x 8 feet and 30 feet deep, was sunk from the surface into the No. 2 mine workings, where a furnace was built. In the No. 1 mine a new opening was made to the surface for ventilation and an escape way from the inner workings.

PANTHER RUN COAL COMPANY

A shaft 10 x 10 feet and about 60 feet deep was sunk from the surface into the main body of the mine, to serve as a means of egress from the workings and for ventilation. The entire power plant has been equipped with new boilers, and a new Ingersoll Air Compressor to furnish power to the coal cutting machines and pumps.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Sparks Hall, DuBois, April 6, 7, 8 and 9.

The Board of Examiners was composed of Elias Phillips, Mine Inspector; George L. Miller, General Manager; and John Aikman, Mine Foreman. There were 44 applicants examined for mine foremen's certificates. The following named persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

William Millburn, William Donaldson, DuBois; Henry Crawford, Sykesville; Isaac J. Harvey, Helvetia.

Second Grade

William G. Adam, Robert G. Dowie, Dagus Mines; George Roberts, Jr., Rathmel; William P. Harris, Brockwayville; H. K. Hiles, Fairmount City; M. H. Woodel, Grampian; Frederick Wilkinson, Woodland; William Penman, Coal Glen; James M. Henry, Fairmount City.

FIFTH DISTRICT

FAYETTE COUNTY

Uniontown, Pa., February 23, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report of the Fifth Bituminous District for the year ending December 31, 1909, as required by the Act of Assembly of May 15, 1893.

Much time was lost during the year by some of the mines in this district owing to poor trade and the scarcity of labor.

Respectfully submitted,

I. G. ROBY,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	60
Number of mines in operation,	60
Number of tons of coal shipped to market,	256,921
Number of tons used at mines for steam and heat,	86,086
Number of tons sold to local trade and used by employes,	55,400
Number of tons used in the manufacture of coke,	6,817,621
Number of tons of coal produced,	7,216,028
Number of tons of coke produced,	4,656,556
Number of coke ovens,	9,038
Number of coke ovens in operation,	9,038
Number of tons of coal produced by pick mining,	6,903,106
Number of tons produced by compressed air machines,	160,043
Number of tons produced by electrical machines,	152,879
Number of persons employed inside of mines,	5,359
Number of persons employed outside, including coke workers	3,245
Number of persons employed at manufacture of coke,	2,078
Number of fatal accidents inside of mines,	17
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	21
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	424,472
Number of persons employed per fatal accident inside,	315
Number of persons employed per fatal accident outside,	1,082
Number of persons employed per non-fatal accident inside,	255
Number of persons employed per non-fatal accident outside,	1,082
Number of wives made widows,	13
Number of children made orphans,	30
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	10
Number of compressed air locomotives used inside,	8
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	31
Number of electric motors used outside,	2
Number of fans in use,	39
Number of furnaces in use,	7
Number of gaseous mines in operation,	20
Number of non-gaseous mines in operation,	40
Number of new mines opened,	3
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	4,502,707
Oliver and Snyder Steel Company,	723,038
W. J. Rainey,	451,691
Bessemer Coke Company,	382,366
Fayette Coke Company,	158,844
Puritan Coke Company,	132.673
S. L. Smith and Company,	77,250
Wharton Steel Company,	73,918
Stewart Iron Company, Limited,	68,050
Sunshine Coal and Coke Company,	64,385
H. R. Sackett Coke Company,	55,881
James H. Hoover,	55,287
South Fayette Coke Company,	54,882
Rich Hill Coke Company,	46,209
Penn Coke Company,	45,860
Whyel Coke Company,	37,003
Republic Iron and Steel Company,	31,467
Gilmore Coke Company,	30,200
W. J. Parshall,	29,770
John R. Carothers,	25,014
Plumer Coke Company,	25,000
Iron City Coal and Coke Company,	19,387
Hope Coke Company,	17,950
William Barton,	16,511
Cheat Haven Coal and Coke Company,	14,954
Smithfield Coal and Coke Company,	12,200
Sapper Coke Company,	11,600
James Byrne and Company,	11,536
Southern Connellsville Coke Company,	11,200
John A. Whyel and Son,	6,834
Superba Coal Company,	6,238
Newcomer Coke Company,	6,063
Baxter Ridge Coke Company,	5,326
Ada Coke Company,	4,734
Total,	7,216,028

Production by Counties

Fayette,	7,216,028

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	9	2	11	9	2	11	500,301	500,301	2,986	1,539	4,525	332	769	332	769
Oliver and Snyder Steel Co.,	2		2	1		1	361,519	723,038	570	306	876	285		570	
W. J. Rainey,	2		2	5		5	225,845	90,338	198	157	355	99		40	
Bessemer Coke Co.,					1	1			333	305	638				305
Fayette Coke Co.,	1	1	2				158,844		159	118	277	159	118		
Wharton Steel Co.,				4		4		18,479	42	31	73			11	
Sunshine Coal and Coke Co.,				1		1		64,385	42	43	85			43	
Rich Hill Coke Co.,				1		1		46,209	60	44	104			60	
Republic Iron and Steel Co.,	1		1				31,467		58	27	85	58			
W. J. Parshall,	2		2				14,885		31	25	56	15			
Miscellaneous Companies,									880	650	1,530				
Totals and averages for district,	17	3	20	21	3	24	424,472	343,620	5,359	3,245	8,604	315	1,082	255	1,082

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	----	----	----	----	----	----	----	1	1	5.88
Falls of slate,	1	----	----	----	----	----	1	----	----	----	----	----	2	11.77
Falls of roof,	1	----	1	1	----	----	----	1	1	1	2	----	8	47.06
Mine cars,	1	----	----	----	1	----	1	----	----	----	----	----	3	17.65
Explosions of gas and dust,	----	----	----	----	----	----	1	----	----	----	----	----	1	5.88
Electricity,	----	----	----	----	----	----	----	----	1	----	----	----	1	5.88
Miscellaneous,	----	----	----	1	----	----	----	----	----	----	----	----	1	5.88
Totals,	3	----	1	2	1	----	3	1	2	1	2	1	17	100.00
Causes of Accidents Outside														
Cars,	----	----	----	1	1	----	----	----	----	----	----	----	2	66.67
Machinery,	----	----	----	----	----	----	----	----	----	----	1	----	1	33.33
Totals,	----	----	----	1	1	----	----	----	----	----	1	----	3	100.00
Grand totals inside and outside,	3	----	1	3	2	----	3	1	2	1	3	----	20	------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	----	----	----	----	----	----	1	----	----	1	----	3	5	23.80
Falls of roof,	----	----	2	----	----	1	----	----	----	----	1	----	4	19.05
Mine cars,	----	2	----	----	2	----	1	----	----	1	----	----	6	28.57
Explosions of gas and dust,	----	----	----	----	----	----	3	----	----	----	----	----	3	14.29
Miscellaneous,	----	2	----	----	----	----	----	----	1	----	----	----	3	14.29
Totals,	----	4	2	----	2	1	5	----	1	2	1	3	21	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	1	----	----	----	----	----	----	1	33.34
Machinery,	1	----	----	----	----	----	----	----	----	----	----	----	1	33.33
Miscellaneous,	----	----	----	1	----	----	----	----	----	----	----	----	1	33.33
Totals,	1	----	----	1	----	1	----	----	----	----	----	----	3	100.00
Grand totals inside and outside,	1	4	2	1	2	2	5	----	1	2	1	3	24	------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	----	----	----	----	----	----	----	----	1	----	----	----	1
Miners,	2	----	1	1	----	----	2	1	1	1	2	1	12
Greasers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Laborers,	----	----	----	1	----	----	1	----	----	----	----	----	2
Trip riders,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	3	----	1	2	1	----	3	1	2	1	2	1	17
Outside													
Miners,	----	----	----	1	----	----	----	----	----	----	----	----	1
Pumpmen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Coke employes,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	----	----	----	1	1	----	----	----	----	----	1	----	3
Grand totals inside and outside,	3	----	1	3	2	----	3	1	2	1	3	1	20

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	2	1	----	----	1	5	----	1	1	----	1	12
Laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Pumpmen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Drivers and runners,	----	1	1	----	1	----	----	----	----	----	----	----	3
Doorboys and helpers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Brakemen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Road men,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	4	2	----	2	1	5	----	1	2	1	3	21
Outside													
Foremen,	----	----	----	1	----	----	----	----	----	----	----	----	1
Laborers,	1	----	----	1	----	1	----	----	----	----	----	----	2
Totals,	1	----	----	1	----	1	----	----	----	----	----	----	3
Grand totals inside and outside,	1	4	2	1	2	2	5	----	1	2	1	3	24

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	----	1	----	----	1	----	1	----	----	----	4
Irish,	----	----	----	----	----	----	----	----	----	----	1	----	1
Polish,	----	----	1	----	----	----	----	1	1	----	----	----	3
Hungarian,	----	----	----	1	----	----	----	----	----	----	----	----	1
Italian,	----	----	----	1	----	----	----	----	----	----	----	----	1
Slavonian,	2	----	----	----	1	----	2	----	----	1	2	----	8
Austrian,	----	----	----	----	1	----	----	----	----	----	----	1	2
Totals,	3	----	1	3	2	----	3	1	2	1	3	1	20

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	1	1	----	----	----	----	----	1	1	1	6
Hungarian,	----	1	----	----	----	1	1	----	1	----	----	----	4
Slavonian,	----	2	1	----	2	1	3	----	----	1	----	2	12
Austrian,	----	1	----	----	----	----	1	----	----	----	----	----	2
Totals.	1	4	2	1	2	2	5	----	1	2	1	3	24

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Continental No. 1,	Shaft,	Gaseous,	Fan,	16	8	4	100	0.9	Capell,	Steam,		6	163,320	98,140	158,000	228
Continental No. 2,	Shaft,	Gaseous,	Fan,	16	8	4	90	1.0	Capell,	Steam,		4	141,000	71,350	145,200	213
Continental No. 3,	Slope,	Gaseous,	Fan,	25	8	7.5	65	1.8	Guibal,	Steam,		4	109,500	76,700	102,460	156
Collier,	Shaft,	Gaseous,	Fan,	20	8	4	85	1.9	Capell,	Steam,		6	150,740	97,500	189,400	273
Crossland,	Slope,	Non-gas.	Fan,	12	4	3.5	75	0.7	Guibal,	Steam,		2	44,100	28,900	47,400	66
Footedale,	Drift and Slope.	Gaseous,	Fan,	13.5	7	3	144	1.7	Capell,	Steam,		6	144,400	108,800	124,400	218
Hopwood,	Slope,	Gaseous,	Fan,	20	7	4.5	60	0.8	Guibal,	Steam,		3	50,400	44,680	62,400	108
Kyle,	Slope,	Non-gas.	Fan,	20	5	4.5	106	2.0	Guibal	Electricity,		3	148,000	46,360	144,058	127
Leckrone No. 1,	Drift and Slope.	Non-gas.	Fan,	13	5	3.5	120	1.5	Capell,	Steam,		6	121,900	72,600	128,000	242
Leckrone No. 2,	Drift,	Non-gas.	Fan,	9	3	2.5	190	0.6	Capell,	Electricity,		2	22,880	19,600	35,000	35
Leckrone No. 3,	Drift,	Non-gas.	Furnace,							Furnace,	26	2	18,200	12,000	16,800	54
Leith,	Shaft,	Gaseous,	Fan,	16	8	4	100	1.8	Capell,	Steam,		3	126,000	92,400	135,000	161
Oliphant,	Slope,	Gaseous,	Fan,	25	8	6.5	75	2.5	Guibal,	Steam,		2	113,900	55,500	117,000	160
Redstone,	Slope,	Gaseous,	Fan,	20	11	5	100	2.5	Robinson,	Steam,		4	130,200	89,700	141,600	272
Shoaf,	Drift,	Non-gas.	Fan,	16	7	4	118	2.4	Robinson,	Electricity,		5	117,720	84,660	122,600	138
Smiley,	Drift,	Non-gas.	Fan,	16	6	4	85	0.7	Guibal,	Electricity,		2	72,680	29,300	79,800	100
Wynn,	Slope,	Gaseous,	Fan,	16	4	4	104	1.5	Guibal,	Electricity,		5	116,860	46,900	120,760	160
Yorkrun,	Drift and Slope.	Gaseous,	Fan,	20	6	5	80	1.1	Guibal,	Steam,		6	138,640	95,000	147,000	275

Oliver and Snyder Steel Co.																
Oliver No. 1,	Shaft,	Gaseous,	Fan,	*								4	108,600	85,640	114,500	243
Oliver No. 2,	Shaft,	Gaseous,	Fan,	20	9	8	100	1.5	Robinson,	Steam,		4	234,000	104,600	205,300	327
W. J. Rainey																
Revere,	Slope,	Gaseous,	Fan,	16	8	7.5	114	2.5	Capell,	Steam,		5	145,500	83,720	140,600	198
Bessemer Coke Co.																
Griffin No. 1,	Drift,	Non-gas.	Fan,	20	5	5	60	1.0	Cole,	Electricity,		3	74,000	29,900	112,500	207
Griffin No. 2,	Slope,	Gaseous,	Fan,	14	6	4.5	58	0.3	Cole,	Steam,		2	72,820	28,400	84,600	126
Mack,	Drift,	Non-gas.	Fan,	†												
Fayette Coke Co.																
Shamrock,	Slope,	Non-gas.	Fan,	9	8	4.2	175	0.3	Capell,	Steam,		3	77,000	35,000	81,000	159
Puritan Coke Co.																
Parshall No. 2,	Slope,	Gaseous,	Fan,	12	6	3	132	1.1	Robinson,	Electricity,		3	78,200	44,000	81,000	139
S. L. Smith and Co.																
Evans,	Slope,	Gaseous,	Fan,	12	4	2	100	0.5	Brazil,	Steam,		2	30,000	25,000	31,000	75
Wharton Steel Co.																
Bourne,	Drift,	Non-gas.	Furnace,							Furnace,	36	2	18,890	12,000	16,980	42
Stewart Iron Co., Limited																
Stewart,	Slope,	Gaseous,	Fan,	20	6	6.5	65	0.5	Guibal,	Steam,		2	60,000	36,000	61,200	58
Sunshine Coal and Coke Co.																
Francis,	Drift,	Non-gas.	Natural,							Natural,		1	9,640	5,890	10,200	22
Hill Top,	Drift,	Non-gas.	Furnace,							Furnace,	26	1	11,800	7,300	13,000	20
H. R. Sackett Coke Co.																
Crystal,	Drift,	Non-gas.	Fan,	15	4	2.5	90	0.3	Brazil,	Steam,		3	50,800	32,000	56,000	83
James H. Hoover																
Hoover,	Slope,	Non-gas.	Fan,	13	7	3.5	50	0.3	Capell,	Steam,		1	48,480	18,120	40,120	34
South Fayette Coke Co.																
Fretts,	Slope,	Non-gas.	Fan,	10	4	3.4	75	0.2	Brazil,	Steam,		1	28,200	12,800	26,000	46
Emory,	Drift,	Non-gas.	Natural,							Natural,		1	9,600	4,200	5,280	13
Coffman,	Drift,	Non-gas.	Natural,							Natural,		1	7,200	5,000	6,800	12
Rich Hill Coke Co.																
Rich Hill,	Drift,	Non-gas.	Fan,	16	4	4	40	0.2	Guibal,	Steam,		2	48,750	34,000	49,200	60
Penn Coke Co.																
Acme,	Drift,	Non-gas.	Furnace,							Furnace,	20	1	14,200	11,000	15,300	29
Penn No. 2,	Drift,	Non-gas.	Natural,							Natural,			8,000	6,200	7,860	33

*Ventilated by fan at No. 2 mine.

†Ventilated by fan at No. 1 mine.

TABLE 1—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Whyel Coke Co.																
Thomas,	Slope,	Non-gas.	Steam,							Steam,		1	14,000	9,000	15,100	26
Republic Iron and Steel Co.																
Atcheson,	Drift,	Non-gas.	Fan,	14	5	5	75	0.5	Brazil,	Steam,		2	44,200	21,400	40,500	58
Gilmore Coke Co.																
Gilmore,	Drift,	Non-gas.	Fan,	6	1.5	3	420	0.2	Stine,	Electricity,		2	42,000	26,420	45,000	56
W. J. Parshall																
Old Home,	Slope,	Gaseous,	Fan,	12	7	4	80	0.5	Clifford,	Steam,		1	56,470	34,680	71,520	31
John R. Carothers																
Coffman,	Drift,	Non-gas.	Natural,							Natural,		1	7,520	3,400	6,400	15
Rider,	Drift,	Non-gas.	Natural,							Natural,						
Plumer Coke Co.																
Plumer,	Slope,	Non-gas.	Fan,	12	4	4	68	0.1	Brazil,	Electricity,		2	29,600	15,600	32,000	42
Iron City Coal and Coke Co.																
Dorothea,	Drift,	Non-gas.	Furnace,							Furnace,	18	1	10,200	4,200	11,120	17
Hope Coke Co.																
Hope,	Slope,	Non-gas.	Fan,	10	3	2	35	0.1	Brazil,	Steam,		1	30,400	18,600	36,800	25

William Barton																
Nellie,	Drift,	Non-gas.	Fan,	6	3	2	150	0.2	Stine,	Steam,		1	12,800	8,600	13,400	10
Weaver,	Drift,	Non-gas.	Natural,							Natural,		1	5,720	3,800	8,800	4
Cheat Haven Coal and Coke Co.																
Eagle,	Drift,	Non-gas.	Fan,	15	4.5	4.5	60	0.2	Brazil,	Steam,		1	23,000	17,500	24,400	23
Smithfield Coal and Coke Co.																
Burchinal,	Drift,	Non-gas.	Natural,							Natural,		1	8,000	4,200	6,000	15
Sapper Coke Co.																
Sapper,	Drift,	Non-gas.	Natural,							Natural,						9
James Byrne and Co.																
Finley,	Drift,	Non-gas.	Natural,							Natural,		1	7,600	3,200	5,160	17
Southern Connellsville Coke Co.																
Marion,	Drift,	Non-gas.	Furnace,							Furnace,	30	2	18,000	10,000	19,600	29
John A. Whyel and Son																
Snyder,	Drift,	Non-gas.	Natural,							Natural,		1	12,000	6,200	11,400	9
Superba Coal Co.																
Superba,	Slope,	Gaseous,	Fan,	16	4	3	50	0.1	Brazil,	Steam,		1	10,000	4,800	9,400	16
Newcomer Coke Co.																
Newcomer,	Drift,	Non-gas.	Natural,							Natural,		1	4,600	3,200	8,240	9
Baxter Ridge Coke Co.																
Baxter,	Drift,	Non-gas.	Natural,							Natural,						9
Ada Coke Co.																
Ada,	Drift,	Non-gas.	Furnace,							Furnace,	20	1	8,640	4,200	7,960	27

TABLE J.—Mines using coal cutting machines, power used, geological anl local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches: Thickest	Height of seam in inches: Thinnest	Approximate number of tons produced by machines
H. C. Frick Coke Co.,	Collier,	Shaft,	Gaseous,	5	Compressed air,	Pittsburg,	96	102	90	8,352
	Footedale,	Drift and Slope.	Gaseous,	3	Electricity,		104	108	100	19,023
	Kyle,	Slope,	Non-gas.	1	Electricity,		100	104	96	4,663
	Shoaf,	Drift,	Non-gas.	3	Electricity,		104	108	100	10,958
	Yorkrun,	Drift and Slope.	Gaseous,	5	Electricity,		104	106	102	118,235
Totals,				17						161,231
W. J. Rainey,	Revere,	Slope,	Gaseous,	3	Compressed air,	Pittsburg,	104	108	100	151,691
Grand totals,				20						312,922

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Continental No. 1,	Fayette,	W. H. Clingerman,	Scottdale,	William Mullen,	Uniontown,	Pennsylvania and B. and O.
Continental No. 2,				R. V. Rex,	Uniontown, R. F. D. No. 3.	Pennsylvania and B. and O.
Continental No. 3,				E. F. Speer,	Newcomer,	Pennsylvania and B. and O.
Collier,				A. J. Foy,	Smithfield, R. F. D. No. 7.	Pennsylvania and B. and O.
Crossland,				J. T. Delehunt,	Uniontown, R. F. D. No. 1.	B. and O.
Footedale,				S. H. Lowe,	New Salem,	Monongahela
Hopwood,				P. J. Locke,	Uniontown,	B. and O.
Kyle,				E. B. Beerbrower,	Fairchance,	Pennsylvania
Leckrone Nos. 1, 2 and 3,				J. A. Ramsey,	Leckrone,	Pennsylvania, B. and O. and Monongahela
Leith,				P. J. Locke,	Uniontown,	Pennsylvania and B. and O.
Oliphant,				V. D. Callaghan,	Oliphant Furnace,	Pennsylvania
Redstone,				W. L. Affelder,	Brownfield,	Pennsylvania and B. and O.
Shoaf,				Frank Emory,	Smithfield, R. F. D. No. 7.	Pennsylvania and B. and O.
Smiley,				Frank Emory,	Smithfield, R. F. D. No. 7.	Pennsylvania and B. and O.
Wynn,				Clarence Patterson,	Fairchance,	Pennsylvania
Yorkrun,				T. A. Douthitt,	Smithfield, R. F. D. No. 7.	Pennsylvania and B. and O.
Oliver and Snyder Steel Co.						
Oliver Nos. 1 and 2,	Fayette,	F. C. Keighley,	Oliver,	John Lane,	Oliver,	B. and O. and P. V. and C. and S. W.
W. J. Rainey						
Revere,	Fayette,	T. J. Mitchell,	Uniontown,	W. C. Reynolds,	Uledi,	Pennsylvania
Bessemer Coke Co.						
Griffin No. 1,	Fayette,	R. L. Martin,	Pittsburg,	Edward Wilkinson,	Masontown,	Monongahela
Griffin No. 2,				S. J. Wood,		
Mack,				Edward Wilkinson,		

TABLE 1.Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Fayette Coke Co. Shamrock,	Fayette,	C. E. Lenhart,	New Salem,	George H. Reynolds,	New Salem,	Monongahela
Puritan Coke Co. Parshall No. 2,	Fayette,	Frank R. Crow,	McClellandtown,	Frank R. Crow,	McClellandtown,	Monongahela
S. L. Smith and Co. Evans,	Fayette,	S. L. Smith,	Evans Station, R. F. D. No. 2,	I. T. Smith,	Uniontown,	B. and O.
Wharton Steel Co. Bourne,	Fayette,	G. A. Whetzel,	Smithfield,	G. A. Whetzel,	Smithfield,	B. and O. and Pennsylvania
Stewart Iron Co., Limited Stewart,	Fayette,	Samuel McClure,	Sharon,	Nathaniel McClure,	Uniontown,	B. and O.
Sunshine Coal and Coke Co. Francis, Hill Top,	Fayette,	Francis J. Rocks,	Uniontown,	William J. McNulty, R. B. Gordon,	McClellandtown, R. F. D. No. 16. Newcomer, R. F. D. No. 3.	Pennsylvania Pennsylvania
H. R. Sackett Coke Co. Crystal,	Fayette,	H. R. Sackett,	Gans,	H. R. Sackett,	Gans,	B. and O.
James H. Hoover Hoover,	Fayette,	John Hoover,	Uniontown,	John Hoover,	Uniontown,	Monongahela and Pennsylvania
South Fayette Coke Co. Fretts, Emory, Coffman,	Fayette,	James W. Abraham,	Uniontown,	J. S. Connor, S. J. Sterling, George A. Laughrey,	Messmore, Leckrone, New Salem,	Pennsylvania B. and O. Monongahela
Rich Hill Coke Co. Rich Hill,	Fayette,	D. S. Richey,	Uniontown,	D. S. Richey,	Uniontown,	B. and O.
Penn Coke Co. Acme, Penn No. 2,	Fayette,	S. M. Hankins,	Uniontown,	N. H. Hankins,	Smithfield,	B. and O.
Whyel Coke Co. Thomas,	Fayette,	Harry Whyel,	Uniontown,	E. B. Swaney,	Smithfield,	B. and O.

Republic Iron and Steel Co. Atcheson,	Fayette,	C. T. Fairbairn,	Pittsburg,	David L. Ainsley,	Gans,	B. and O.
Gilmore Coke Co. Gilmore,	Fayette,	G. B. Gilmore,	Uniontown,	Earl Leadbeater,	Smithfield,	B. and O.
W. J. Parshall Old Home,	Fayette,	W. J. Parshall,	Uniontown,	George Porter, Jr.,	Uniontown,	Monongahela
John R. Carothers Coffman, Rider,	Fayette,	J. R. Carothers,	Uniontown,	M. Hurley,	Leckrone,	Monongahela
Plumer Coke Co. Plumer,	Fayette,	G. B. Gilmore,	Uniontown,	Edward Eberly,	McClellandtown,	Monongahela
Iron City Coal and Coke Co. Dorothea,	Fayette,	John McGill,	Outcrop,	John McGill,	Outcrop,	B. and O.
Hope Coke Co. Hope,	Fayette,	W. B. Hustead,	Uniontown,	W. B. Hustead,	Uniontown,	B. and O.
William Barton Nellie, Weaver,	Fayette,	William Barton,	Smithfield,	William Barton,	Smithfield,	B. and O.
Cheat Haven Coal and Coke Co. Eagle,	Fayette,	J. T. Fawcett,	Cheat Haven,	J. T. Fawcett,	Cheat Haven,	B. and O.
Smithfield Coal and Coke Co. Burchinal,	Fayette,	R. S. Burchinal,	Smithfield,	R. S. Burchinal,	Smithfield,	B. and O.
Sapper Coke Co. Sapper,	Fayette,	J. A. Shannon,	Uniontown,	J. A. Shannon,	Uniontown,	B. and O.
James Byrne and Co. Finley,	Fayette,	James Byrne,	Everson,	James Byrne,	Everson,	Monongahela
Southern Connellsville Coke Co. Marion,	Fayette,	Richard Herrick,	Cheat Haven,	Richard Herrick,	Cheat Haven,	B. and O.
John A. Whyel and Son Snyder,	Fayette,	John A. Whyel,	Uniontown,	John A. Whyel,	Uniontown,	

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Superba Coal Co. Superba,	Fayette,	James W. Buttermore.	Connellsville,	James W. Buttermore.	Connellsville,	B. and O.
Newcomer Coke Co. Newcomer,	Fayette,	James W. Abrahams	Uniontown,	I. F. Roby,	Newcomer,	Pennsylvania
Baxter Ridge Coke Co. Baxter,	Fayette,	John T. Hoover,	Uniontown,	John T. Hoover,	Uniontown,	B. and O.
Ada Coke Co. Ada,	Fayette,	McClellan Leonard,	Uniontown,	W. P. Bailey,	Uniontown,	B. and O.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
H. C. Frick Coke Co.																
Continental No. 1,	Fayette,	2,635	2,187	2,715	383,733	391,270	255,822	400	284	332	----	----	------	600	----------	54
Continental No. 2,	Fayette,	----------	4,755	1,526	280,011	286,292	186,674	326	288	326	----	1	------	500	12,750	41
Continental No. 3,	Fayette,	582	6,875	2,978	256,857	267 292	171,238	300	289	260	----	----	------	------	28,500	33
Collier,	Fayette,	----------	1,634	1,331	354,486	357,459	236,324	400	315	342	2	3	------	700	45,000	46
Crossland,	Fayette,	----------	1,171	547	117,423	119,141	78,282	120	286	110	2	----	------	80	650	15
Footedale,	Fayette,	1,699	4,803	3,373	338,774	348,649	225,849	400	288	363	----	1	------	------	48,125	43
Hopwood,	Fayette,	95,253	974	244	----------	96,471	----------	------	170	122	----	----	------	------	3,025	20
Kyle,	Fayette,	3,833	--------	2,987	200,216	207,036	133,477	306	288	190	1	----	------	200	6,375	18
Leckrone Nos. 1, 2 and 3,	Fayette,	614	5,881	4,377	458,751	469,623	305,834	516	286	488	2	----	------	------	63,158	33
Leith,	Fayette,	----------	4,367	2,415	246,533	253,315	164,355	308	289	280	1	1	------	------	----------	38
Oliphant,	Fayette,	----------	5,029	1,765	208,377	215,171	138,918	252	287	234	1	1	------	200	8,450	32
Redstone,	Fayette,	199	4,897	1,589	393,696	400,381	262,464	446	289	432	1	2	------	------	4,250	47
Shoaf,	Fayette,	5,414	--------	984	378,830	385,228	252,553	448	288	375	1	2	------	------	31,500	35
Smiley,*	Fayette,	----------	--------	--------	----------	----------	----------	------	----	----	----	----	------	------	----------	----
Wynn,	Fayette,	----------	--------	1,438	249,654	251,092	166,436	300	280	228	----	----	------	------	21,000	21
Yorkrun,	Fayette,	252	202	2,558	451,275	454,287	300,850	500	289	443	----	----	------	600	50,825	35
Totals,		110,481	42,775	30,835	4,318,616	4,502,707	2,879,076	5,022	------	4,525	11	11	------	2,880	323,608	511
Oliver and Snyder Steel Co.																
Oliver No. 1,	Fayette,	----------	11,155	1,675	301,176	314,006	200,784	328	291	356	----	----	------	------	6,743	35
Oliver No. 2,	Fayette,	----------	6,061	--------	402,971	409,032	267,385	480	291	520	2	1	------	------	20,280	58
Totals,		----------	17,216	1,675	704,147	723,038	468,169	808	------	876	2	1	------	------	27,023	93

*Included with Shoaf.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
W. J. Rainey																
Revere,	Fayette,	.....	1,692	2,596	447,403	451,691	298,269	650	302	355	2	5	.....	.....	60,000	47
Bessemer Coke Co.																
Griffin No. 1,	Fayette,	.....	4,719	1,065	226,756	232,540	167,800	303	283	436	....	1	.....	.....	70,750	40
Griffin No. 2,		.....	1,152	984	147,690	149,826	112,255	196	294	202	....	....	.....	.....	58,800	25
Mack,†		.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	.....	.....	.....	.....
Totals,		.....	5,871	2,049	374,446	382,366	280,055	499	.....	638	....	1	.....	.....	129,550	65
Fayette Coke Co.																
Shamrock,	Fayette,	.....	2,774	3,195	152,875	158,844	131,844	260	285	277	2	....	.....	.....	30,275	12
Puritan Coke Co.																
Parshall No. 2,	Fayette,	3,635	125	1,121	127,792	132,673	106,742	202	280	215	....	....	.....	.....	10,000	18
S. L. Smith and Co.																
Evans,	Fayette,	76,000	1,100	150	.....	77,250	.....	.....	310	91	....	....	.....	.....	.....	10
Wharton Steel Co.																
Bourne,	Fayette,	15,572	139	245	57,962	73,918	45,337	86	308	73	....	4	.....	.....	4,200	11
Stewart Iron Co., Limited																
Stewart,	Fayette,	.....	4,393	585	63,072	68,050	56,657	155	234	114	....	....	.....	.....	65	5

†Included with Griffin Nos. 1 and 2.

Sunshine Coal and Coke Co.																
Francis,	Fayette,		900	1,800	52,350	55,050	34,900	50	311	46					7,000	6
Hill Top,			300	360	8,675	9,335	5,785	52	52	39		1			1,000	5
Totals,			1,200	2,160	61,025	64,385	40,685	102		85		1			8,000	11
H. R. Sackett Coke Co.																
Crystal,	Fayette,		450	390	55,041	55,881	41,261	120	308	141					12,000	8
James H. Hoover																
Hoover,	Fayette,		1,528	476	53,283	55,287	34,130	74	246	70					14,150	5
South Fayette Coke Co.																
Fretts,	Fayette,		600	300	32,362	33,262	21,189	80	142	75					4,260	9
Emory,				150	14,264	14,414	10,300	32	145	22					1,450	3
Coffman,			40	100	7,066	7,206	3,577	24	81	19					810	2
Totals,			640	550	53,692	54,882	35,066	136		116					6,520	14
Rich Hill Coke Co.																
Rich Hill,	Fayette,		728	727	44,754	46,209	36,590	120	240	104		1			2,000	12
Penn Coke Co.																
Acme,	Fayette,	14,300	350	350	30,860	45,860	19,000	86	260	122					500	12
Penn No. 2,*																
Whyel Coke Co.																
Thomas,	Fayette,		603	440	35,960	37,003	23,973	40	257	43						4
Republic Iron and Steel Co.																
Atcheson,	Fayette,		214		31,253	31,467	25,405	139	126	85	1				3,000	13
Gilmore Coke Co.																
Gilmore,	Fayette,		100	100	30,000	30,200	20,000	101	88	120					5,000	4
W. J. Parshall																
Old Home,	Fayette,		2,190	500	27,080	29,770	18,054	32	300	56	2				7,600	10
John R. Carothers																
Coffman,	Fayette,		144	70	24,800	25,014	18,600	32	285	31				2,850		6
Rider,†																
Plumer Coke Co.																
Plumer,	Fayette,				25,000	25,000	15,000	72	99	90					5,000	5
Iron City Coal and Coke Co.																
Dorothea,	Fayette,		900		18,487	19,387	13,205	30	279	34						2

*Included in Acme.
†Included in Coffman.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Hope Coke Co.																
Hope,	Fayette,				17,950	17,950	8,978	38	141	40						7
William Barton																
Nellie,	Fayette,	10,370	200	20		10,590			202	12						4
Weaver,		5,621	300			5,921			211	5						1
Totals,		15,991	500	20		16,511				17						5
Cheat Haven Coal and Coke Co.																
Eagle,	Fayette,	14,804	50	100		14,954			68	36			2,150		1,000	9
Smithfield Coal and Coke Co.																
Burchinal,	Fayette,		100	100	12,000	12,200	8,000	34	215	29						5
Sapper Coke Co.																
Sapper,	Fayette,		30	20	11,550	11,600	8,199	26	140	19						3
James Byrne and Co.																
Finley,	Fayette,		70		11,466	11,536	8,134	32	230	30					2,000	5
Southern Connellsville Coke Co.																
Marion,	Fayette,		60	60	11,080	11,200	6,571	52	120	52					2,500	2
John A. Whyel and Son																
Snyder,	Fayette,			6,834		6,834			256	10			700			2

Superba Coal Co.																
Superba,	Fayette,	6,138	50	50	.....	6,238	.....	.....	115	18	.....	.....	.....	50	.....	1
Newcomer Coke Co.																
Newcomer,	Fayette,	.....	.....	2	6,061	6,063	3,500	30	89	18	.....	.....	.....	.....	.....	3
Baxter Ridge Coke Co.																
Baxter,	Fayette,	.....	83	.....	5,243	5,326	3,672	20	87	20	.....	.....	.....	.....	.....	2
Ada Coke Co.																
Ada,	Fayette,	.....	11	.....	4,723	4,734	2,384	40	71	54	.....	.....	.....	.....	2,250	3
Grand totals,	.....	256,921	86,086	55,400	6,817,621	7,216,028	4,656,556	9,038	.....	8,604	20	24	2,850	5,780	656,241	925

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers: Cylindrical	Number of Boilers: Horse power	Number of Boilers: Tubular	Number of Boilers: Horse power	Number of Boilers: Total horse power	Locomotives: Steam	Locomotives: Air	Locomotives: Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
H. C. Frick Coke Co.,		7	352	64	10,485	10,837	6	7	26	54	9,261	16	18,900	3,504	17	19
Oliver and Snyder Steel Co.,				19	1,425	1,425	2			5	960	1	700	500	1	2
W. J. Rainey,				8	1,200	1,200				7	800	3	1,600	800	3	1
Bessemer Coke Co.,				6	800	800			2	5	580	1	300	160	2	1
Fayette Coke Co.,				5	480	480			2	3	230	1	255	80		1
Puritan Coke Co.,				4	600	600				2	300	1	170	150		1
S. L. Smith and Co.,		1	20	3	130	150				2	58	2	50	40		
Stewart Iron Co., Limited,				3	700	700				4	514	3	438	50		1
Sunshine Coal and Coke Co.,				2	80	80				2	80					
Sackett Coke Co.,				3	325	325				2	248					
James H. Hoover,				2	190	190				3	90	1	150	100		1
South Fayette Coke Co.,		2	200			200				3	125	1	160	90		2
Rich Hill Coke Co.,				2	80	80		1		1	40	1	100	100	1	
Penn Coke Co.,				3	87	87				2	60					
Whyel Coke Co.,				1	125	125				1	15	1	600	120		
Republic Iron and Steel Co.,	Fayette,			2	90	90	1			1	21	2	65	65		
Gilmore Coke Co.,				1	40	40			2						1	
W. J. Parshall,				2	300	300				3	325	1	100	75		1
John R. Carothers,		1	30	1	20	50										
Plumer Coke Co.,				1	20	20			1			1	60	60	1	
Iron City Coal and Coke Co.,				1	75	75										
Hope Coke Co.,												1	60	35		
William Barton,				1	25	25										
Cheat Haven Coal and Coke Co.,				2	35	35										
Smithfield Coal and Coke Co.,		1	35	1	60	95				2	70					

Sapper Coke Co.,				1	40	46											
James Byrne and Co.,				1	16	16											
Southern Connellsville Coke Co.,				2	40	40				1	20						
Superba Coal Co.,				1	30	30				1	30						
Baxter Ridge Coke Co.,							1			1	50						
Totals,		12	637	142	17,498	18,135	10	8	33	105	13,877	37	23,708	5,929	26	21	

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County.	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
H. C. Frick Coke Co.,	Fayette,	17	10	35	1,948	15	106	13	229	36	369	208	2,986	15	29	72	63	1,008	21	331	1,539	4,525
Oliver and Snyder Steel Co.,		2	1	7	385	----	----	----	57	8	78	32	570	1	3	18	13	225	4	42	306	876
W. J. Rainey,		1	----	4	120	3	----	3	22	2	22	21	198	1	2	7	6	106	9	26	157	355
Bessemer Coke Co.,		2	----	2	226	----	----	----	32	7	56	8	333	2	4	17	11	109	3	159	305	638
Fayette Coke Co.,		1	----	1	115	----	----	----	16	----	17	9	159	1	1	3	4	80	1	28	118	277
Puritan Coke Co.,		1	----	1	107	----	----	----	11	1	6	12	139	1	1	3	5	57	1	8	76	215
S. L. Smith and Co.,		1	----	1	54	----	----	----	9	1	9	----	75	1	----	1	4	----	1	9	16	91
Wharton Steel Co.,		1	----	----	27	----	----	----	10	----	4	----	42	1	----	1	----	21	1	7	31	73
Stewart Iron Co., Limited,		1	----	1	40	----	----	----	5	1	10	----	58	1	2	2	5	37	1	8	56	114
Sunshine Coal and Coke Co.,		2	----	----	30	----	----	----	5	----	4	1	42	2	2	2	2	25	2	8	43	85
H. R. Sackett Coke Co.,		1	----	----	67	----	----	----	8	2	4	1	83	1	1	2	1	50	1	2	58	141
James H. Hoover,		1	----	1	25	----	----	----	4	----	----	3	34	1	----	2	4	21	1	7	36	70
South Fayette Coke Co.,		3	----	----	52	----	----	----	6	----	10	----	71	----	----	3	2	40	----	----	45	116
Rich Hill Coke Co.,		1	----	----	48	----	----	----	6	----	----	5	60	1	1	1	----	26	2	13	44	104
Penn Coke Co.,		2	----	----	52	----	----	----	4	----	4	----	62	1	----	2	2	40	----	15	60	122
Whyel Coke Co.,		1	----	----	20	----	----	----	2	----	3	----	26	----	----	1	1	10	1	4	17	43
Republic Iron and Steel Co.,		1	1	----	45	----	----	----	4	----	4	3	58	1	1	1	1	20	1	2	27	85
Gilmore Coke Co.,		1	1	----	45	----	----	----	4	----	5	----	56	1	1	1	----	50	----	11	64	120
W. J. Parshall,		1	----	1	12	1	6	1	3	----	6	----	31	1	1	2	3	15	----	3	25	56
John R. Carothers,		1	----	----	12	----	----	----	1	----	1	----	15	1	1	----	2	12	----	----	16	31
Plumer Coke Co.,		1	----	1	32	----	----	----	4	----	----	4	42	1	1	1	1	30	----	14	48	90
Iron City Coal and Coke Co.,		1	----	----	14	----	----	----	2	----	----	----	17	1	----	----	----	12	----	4	17	34
Hope Coke Co.,		1	----	----	16	----	----	----	3	----	2	3	25	1	1	1	----	12	----	----	15	40
William Barton,		1	----	----	11	----	----	----	2	----	----	----	14	----	1	----	----	----	----	2	3	17

Cheat Haven Coal and Coke Co.,	1			17				4		1		23			2	1		2	8	13	36
Smithfield Coal and Coke Co.,	1			12				2				15	1		1	1	10	1		14	29
Sapper Coke Co.,				8				1				9	1			1	7		1	10	19
James Byrne and Co.,	1			11				3		2		17	1	1	1		8		2	13	30
Southern Connellsville Coke Co.,	1			25				2		1		29	1		2	2	12		6	23	52
John A. Whyel and Son,				9								9	1							1	10
Superba Coal Co.,	1			12				2		1		16	1		1					2	18
Newcomer Coke Co.,				7				1		1		9	1	1			6		1	9	18
Baxter Ridge Coke Co.,				6				1		1	1	9	1			2	5	1	2	11	20
Ada Coke Co.,	1			23				2		1		27	1				24	1	1	27	54
Totals,	52	13	55	3,633	19	112	17	467	58	622	311	5,359	46	55	150	137	2,078	55	724	3,245	8,604

TABLE 3 —Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Fayette,	21	19	21	21	21	23	26	26	26	26	26	26	282
Oliver and Snyder Steel Co.,	Fayette,	26	23	18	20	22	26	26	26	26	26	26	26	291
W. J. Rainey,	Fayette,	26	22	26	22	24	26	26	26	26	26	26	26	302
Bessemer Coke Co.,	Fayette,	23	21	23	23	23	23	25	25	26	26	26	26	290
Fayette Coke Co.,	Fayette,	20	20	23	21	23	23	25	26	26	26	26	26	285
Puritan Coke Co.,	Fayette,	22	15	19	20	24	25	26	26	26	26	26	25	280
S. L. Smith and Co.,	Fayette,	26	24	27	26	26	26	24	27	26	25	26	27	310
Wharton Steel Co.,	Fayette,	26	24	27	26	25	26	26	25	26	26	26	25	308
Stewart Iron Co., Limited,	Fayette,	20	10	10	15	17	25	26	15	21	26	24	25	234
Sunshine Coal and Coke Co.,	Fayette,	13	12	14	13	13	13	13	13	13	13	26	26	182
H. R. Sackett Coke Co.,	Fayette,	26	24	27	26	26	26	25	26	26	26	26	24	308
James H. Hoover,	Fayette,	22	17	.....	.....	26	26	26	26	26	26	26	25	246
South Fayette Coke Co.,	Fayette,	5	.....	.....	.....	.....	.....	6	16	19	25	26	26	123
Rich Hill Coke Co.,	Fayette,	16	16	15	15	17	16	18	23	26	26	26	26	240
Penn Coke Co.,	Fayette,	22	19	17	16	20	22	22	22	25	26	25	24	260
Whyel Coke Co.,	Fayette,	18	16	18	16	18	22	22	23	26	26	26	26	257
Republic Iron and Steel Co.,	Fayette,	26	24	.....	.....	.....	.....	.....	.....	.....	25	25	26	126
Gilmore Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	11	26	26	25	88
W. J. Parshall,	Fayette,	25	21	25	26	23	25	25	26	26	26	26	26	300
John R. Carothers,	Fayette,	25	22	24	23	23	24	25	24	22	24	24	25	285
Plumer Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	22	26	26	25	99
Iron City Coal and Coke Co.,	Fayette,	23	24	20	25	20	25	22	25	25	25	21	24	279
Hope Coke Co.,	Fayette,	10	10	5	5	5	5	5	5	15	25	25	26	141
William Barton,	Fayette,	13	12	10	14	11	19	21	22	22	25	24	14	207
Cheat Haven Coal and Coke Co.,	Fayette,	7	1	1	.....	.....	2	1	.....	6	11	21	18	68
Smithfield Coal and Coke Co.,	Fayette,	20	22	.....	.....	.....	25	25	25	25	25	25	23	215
Sapper Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	10	26	26	26	26	26	140
James Byrne and Co.,	Fayette,	14	.....	.....	17	25	26	22	22	26	26	26	26	230
Southern Connellsville Coke Co.,	Fayette,	26	1	.....	.....	.....	.....	.....	.....	15	26	26	26	120
John A. Whyel and Son,	Fayette,	26	23	25	26	14	13	13	15	24	26	25	26	256
Superba Coal Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	14	26	25	25	25	115
Newcomer Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	13	26	26	24	89
Baxter Ridge Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	9	26	26	26	87
Ada Coke Co.,	Fayette,	.....	.....	.....	.....	.....	.....	.....	.....	.....	20	24	27	71

TABLE 4—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 7	Andy Molnar,	Slavonian,	Miner,	21	S.			Oliphant,		Was found dead under mine car in room near his working place. He had been loading and hauling coal.
11	Frank Comley,	American,	Miner,	26	M.	1	2	Atcheson,		Instantly killed by fall of roof. He had neglected to set sufficient posts.
13	Joseph Washko,	Slavonian,	Greaser,	17	S.			Collier,		Killed at shaft bottom by fall of slate that had loosened at the side.
March 2	Clemans Potaizek,	Polish,	Miner,	35	M.	1	2	Oliver No. 2.		Fatally injured by fall of coal and slate. Neglected to secure his working place with posts.
April 10	Albert Childs,	American,	Laborer,	25	M.	1	3	Collier,	Fayette,	Fatally injured while charging air-locomotive. A loosened sleave on the connecting pipe blew off and fractured his skull. Accident occurred on main entry near shaft bottom.
12	Mathew Radish,	Hungarian,	Miner,	39	S.			Redstone,		Fatally crushed by being run down by larry. Outside.
14	Christmas Fayette,	Italian,	Miner,	22	S.			Shamrock,		Instantly killed by fall of roof.
May 9	Paul Horwat,	Slavonian,	Coke drawer,	31	S.			Leckrone No. 1,		Instantly killed by being run over by a runaway car. Outside.
31	John Radivich,	Austrian,	Trip rider,	22	S.			Old Home,		Instantly killed on slope. While stepping from moving trip to signal engineer he was knocked down and run over.
July 1	Earl Kirby,	American,	Laborer,	18	S.			Old Home,		Instantly killed. While lowering a car on layoff he was caught between it and rib.
19	Mike Bobko,	Slavonian,	Miner,	45	M.	1		Revere,		Fatally burned by an explosion of gas ignited by an open lamp. Accident occurred in pillar workings.

TABLE 4—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
July	24	Joseph Sorwish,	Slavonian,	Miner,	32	M.	1	1	Shoaf,		Fatally injured by fall of slate near working face of room.
Aug.	30	Joseph Rosbosky,	Polish,	Miner,	36	M.	1	1	Oliver No. 2,		Fatally crushed by falling slate and coal in his working place on pillars. Had neglected to set posts.
Sept.	2	Michael V. Doyle,	American,	Mine foreman,	35	M.	1	3	Leckrone No. 1,		Fatally crushed by fall of roof and slate on main haulage road, while operating an electric motor bringing a trip of loaded cars out of the mine.
	16	Andy Sundle,	Polish,	Miner,	52	M.	1	4	Kyle,	Fayette,	Instantly killed by coming in contact with a trolley wire charged with 550 volts, while alighting from mine car on main heading.
Oct.	15	Stephen Leper,	Slavonian,	Miner,	39	M.	1	4	Revere,		Instantly killed by fall of roof and slate in pillar workings.
Nov.	11	John Charmer,	Slavonian,	Miner,	32	M.	1	1	Crossland,		Instantly killed by fall of roof while making a rib fall.
	11	Joe Rachuels,	Slavonian,	Miner,	28	M.	1	1			
	28	James Conroy,	Irish,	Pumper,	57	M.	1	5	Shamrock,		Instantly killed by falling into fan belt, while in a faint. Outside.
Dec.	2	George Klemsara,	Austrian,	Miner,	42	M.	1	3	Leith,		Fatally injured by fall of coal and slate at face of working place.

TABLE 5—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 18	Ben Hardin,	American,	Laborer,	26	S.	Collier,	Fayette,	Three toes cut off by being caught between pinion wheel on main shaft and master wheel on propeller shaft of coke drawing machine in coke yard.
Feb. 1	Thomas Eager,	Austrian,	Miner,	24	S.	Bourne,		Shoulder dislocated by falling against post while escaping from under roof that was working.
2	Joseph Damer,	Slavonian,	Miner,	40	M.	Continental No. 2,		Thigh broken by being knocked down while attempting to apply brake.
3	George Benodish,	Hungarian,	Driver,	19	S.	Rich Hill,		Collar bone broken and otherwise injured by being caught between car and rib on entry.
17	John Sipmanchek,	Slavonian,	Pumper,	50	M.	Collier,		Leg broken by being caught between door and door jam in main driveway.
March 15	Silas Vanbreman,	American,	Miner,	35	M.	Bourne,		Leg broken by fall of roof in his working place in room.
25	Stephen Sheranko,	Slavonian,	Driver,	23	M.	Footedale,		Leg broken by fall of roof.
April 3	Aaron Hickle,	American,	Yard boss,	66	M.	Griffin No. 1,		Sight of one eye destroyed by being struck by a piece of material flying from a coke drawing machine in coke yard.
May 1	Mike Harnescheck,	Slavonian,	Driver,	24	M.	Shoaf,		Arm broken and leg fractured between mine cars on entry.
17	John Benshick,	Slavonian,	Brakeman,	18	S.	Shoaf,		Arm broken between mine cars on entry.
June 4	Andrew Yosik,	Slavonian,	Laborer,	22	S.	Collier,		Foot was so badly crushed that amputation was necessary by being run over by a car he was shifting in the yard. Outside.
29	George Burdakay,	Hungarian,	Miner,	23	S.	Oliver No. 2,		Foot crushed by fall of roof in pillar workings.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July 7	Joseph Wenkler,	Austrian,	Miner,	27	M.	Bourne,		Shoulder dislocated by being caught between car and rib on heading.
19	George Bobby,	Slavonian,	Miner,	27	M.	Revere,		Severely burned by an explosion of gas in pillar workings.
	Michael Kotrade,	Slavonian,	Miner,	42	S.			
	George Karofa,	Slavonian,	Miner,	22	S.			
24	Peter Rich,	Hungarian,	Miner,	21	S.	Redstone,		Leg broken by fall of slate in pillar workings.
Sept. 22	Michael Rasich,	Hungarian,	Miner,	22	S.	Redstone,	Fayette,	Sight of one eye destroyed by pick striking it in working place.
Oct. 18	Michael Rigda,	Slavonian,	Miner,	31	M.	Oliphant,		Leg broken by fall of slate in pillar workings.
29	John Corcoran,	American,	Trapper,	17	S.	Leith,		Arm broken by being caught in the wheel of a moving car on heading.
Nov. 27	Hugh Breakiron,	American,	Roadman,	42	M.	Bourne,		Ankle broken by fall of roof in room.
Dec. 5	Patrick McArdle, Jr.,	American,	Roadman,	30	S.	Revere,		Pelvis bone fractured by fall of slate on air-way.
5	Stephen Macjo,	Slavonian,	Laborer,	19	S.	Revere,		Leg broken by fall of slate on pillar workings.
27	Lawerence Stools,	Slavonian,	Miner,	36	M.	Hill Top,		Hip dislocated by fall of slate on pillar workings.

THE EXPLOSION AT REVERE MINE

On the morning of July 19, about 5.45, an explosion of fire-damp occurred at the Revere mine of W. J. Rainey, by which three of the workmen were very painfully burned and one fatally burned. The explosion was the result of the flame of an open light coming in contact with a body of gas that had accumulated on a rib fall in No. 8 entry, left of the main slope.

Open lights were in use at the time, except in the development work in the dip section, where safety lamps were used. The removal of pillars had just been begun on No. 8 flat heading, and several falls had been made, which had broken up about twenty or thirty feet. As this was the last section examined by the fire boss before making his report, it is evident, in view of the fact that such a short time elapsed between his examination and the explosion, that the examination was not thorough.

The accumulation of gas was the result of the ventilation having been neglected in this section. Safety lamps were installed exclusively the following morning.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Continental Nos. 1, 2 and 3, Collier, Crossland, Footedale, Kyle, Leckrone Nos. 1, 2 and 3, Leith, Oliphant, Redstone, Shoaf, Smiley, Wynn and Yorkrun, all operated practically full time; but a part of their ovens were idle, owing to the depressed condition of trade, until mid-summer, when the demand grew stronger. The increased demand for labor could not at first be met, thereby preventing the operation of ovens to some extent until the latter part of the year.

The drainage, ventilation and general condition of these mines were good with a few exceptions as to ventilation; but the defects were at once remedied when attention was called to them.

All of the above mines are naturally damp, excepting Collier, which in one section of the air-current was becoming dry on my last visit. This matter was taken up with the Superintendent and Mine Foreman, who promised to give it immediate attention by removing the dust as far as practicable and watering the dry section with a water car made for that purpose.

Continental Nos. 1, 2 and 3, Collier, Crossland, Hopwood, Leith, Oliphant, Redstone, Wynn and the dip portion of Footedale, use safety lamps exclusively, except Oliphant and Wynn, where open lights are used on main haulage fords; and all of the mines, with the exception of Continental No. 1 and Leith, which do all their mining by pick, have employed shot-firers to do the shooting when the men are out of the mine, and only the permissible explosives are used.

OLIVER AND SNYDER STEEL COMPANY

Oliver Nos. 1 and 2.—Ventilation, drainage and general condition good. These mines are naturally damp, and the most rigid discipline is enforced. No expense is spared to make them safe. Shot-firers are

employed to do the blasting when the men are all out of the mines, except those engaged in this work, and only the permissible explosives are used.

In each rib section a Rib-boss is employed, his duty being to instruct the workmen in setting timber and making falls.

W. J. RAINEY

Revere.—Drainage and general condition good. The ventilation on the left of the slope and in a part of the dip workings was not satisfactory on one of my visits. The matter was taken up and received prompt attention by the officials. A portion of the right side of the slope was becoming dusty; but a water wagon for sprinkling has been installed.

Safety lamps have been installed exclusively. The blasting is done with one of the permissible explosives when the workmen are out of the mine.

BESSEMER COKE COMPANY

Griffin No. 1.—On my last visit I found that the ventilation had been neglected in parts of the mine. On the right side and at the face of the main workings the air was not being carried up well to the working faces, while on the left side of the main entrance it was escaping through surface breaks before reaching all the working faces. On the right side of the main entrance a section was becoming dry and dusty. The discipline was not up to the standard. I took the matter up with the officials at once and everything has been satisfactorily adjusted. The dust is loaded and sent out and a water wagon installed for sprinkling. Safety lamps are used except on main haulage roads. Shot-firers are employed to do the blasting after the men are out of the mine, and two fans are operated continuously for the ventilation.

Griffin No. 2.—Ventilation, drainage and general condition good.

FAYETTE COKE COMPANY

Shamrock.—Ventilation, drainage and other conditions good.

PURITAN COKE COMPANY

Parshall No. 2.—General condition, drainage and ventilation good. This mine is damp and worked exclusively with safety lamps. The blasting is done at night when the men are all out of the mine, and permissible explosives are used.

S. L. SMITH AND COMPANY

Evans.—Drainage and other conditions good, except ventilation, which was not being carried up well to working faces. Attention was called to this matter and it was promptly adjusted. The mine is very wet and all the mining is done by pick. Safety lamps are used exclusively.

WHARTON STEEL COMPANY

Bourne.—In fair condition.

STEWART IRON COMPANY, LIMITED

Stewart.—Ventilation, drainage and other conditions good. This is a safety-lamp mine and the blasting is done with permissible explosives, when the workmen are out of the mine.

SUNSHINE COAL AND COKE COMPANY

Francis.—In fair condition.
Hill Top.—In good condition.

H. R. SACKETT COKE COMPANY

Crystal.—In very good condition.

JAMES H. HOOVER

Hoover.—Ventilation, drainage and general conditions good. This is a damp mine, and the blasting is done with permissible explosives, when the workmen are out of the mine.

SOUTH FAYETTE COKE COMPANY

Fretts.—In good condition. Permissible explosives are used and their blasting is done at night.
Emory.—In satisfactory condition.
Coffman.—In fair condition.

RICH HILL COKE COMPANY

Rich Hill.—Ventilation, drainage and other conditions good. This is a damp mine and the blasting is done with permissible explosives, when the workmen are out of the mine.

PENN COKE COMPANY

Acme.—In satisfactory condition.
Penn No. 2.—In good condition.

WHYEL COKE COMPANY

Thomas.—In satisfactory condition.

REPUBLIC IRON AND STEEL COMPANY

Atcheson.—In fair condition.

GILMORE COKE COMPANY

Gilmore.—Drainage and general condition good. On my last visit the ventilation was not up to the requirements, but a new six-foot fan was put into operation the following week, and the air measurements, which were taken at the working faces and sent me are entirely satisfactory. This is a damp mine and the blasting is done with permissible explosives, when the workmen are out of the mine.

W. J. PARSHALL

Old Home.—Ventilation, drainage and other conditions good. This is a damp mine, worked exclusively with locked safety lamps, and the blasting is done with permissible explosives, when the workmen are out of the mine.

JOHN R. CAROTHERS

Coffman.—In fair condition.
Rider.—In satisfactory condition.

PLUMER COKE COMPANY

Plumer.—Drainage and general condition good. Ventilation was not satisfactory on my last visit.

IRON CITY COAL AND COKE COMPANY

Dorothea.—In fair condition.

HOPE COKE COMPANY

Hope.—This is a new mine, the construction of which is not complete.

WILLIAM BARTON

Nellie.—In fair condition.
Weaver.—In fair condition.

CHEAT HAVEN COAL AND COKE COMPANY

Eagle.—In satisfactory condition.

SMITHFIELD COAL AND COKE COMPANY

Burchinal.—In fair condition.

SAPPER COKE COMPANY

Sapper.—In good condition.

JAMES BYRNE AND COMPANY

Finley.—In satisfactory condition.

SOUTHERN CONNELLSVILLE COKE COMPANY

Marion.—This is a new mine and is in fair condition.

JOHN A. WHYEL AND SON

Snyder.—In fair condition.

SUPERBA COAL COMPANY

Superba.—In fair condition. This is a new mine.

NEWCOMER COKE COMPANY

Newcomer.—In good condition.

BAXTER RIDGE COKE COMPANY

Baxter.—In fair condition.

ADA COKE COMPANY

Ada.—In fair condition.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

The general management of this company, in my opinion, is not excelled in the region. The application of practically all known safeguards is rigidly enforced. Through their organization the most careful discipline is maintained, and all rules are strictly obeyed and carried out. This company has established some hard and fast rules, which, in my opinion, have prevented many accidents.

1st.—The rib has been slabbed and whitewashed through the entire length of all haulage roads, making an allowance of at least three feet between the side of car and rib, thus insuring more safety to the drivers.

2nd.—A system of posting has been installed, requiring the posts to be set in parallel lines, the maximum distance not to exceed four and a half feet apart, and they must be set within six feet of the face and as much closer in either case as in the judgment of the foreman the conditions of the roof demand.

3rd.—In all places where pillars are being removed, men of mature judgment are employed, and one is placed in each rib section. Their only duty is to instruct the workmen how, when and where to set their timbers and help them in making rib falls.

Collier.—A compressed air mine haulage was completed during the year.

An underground stable, of fire-proof construction, was built, the total length of which is 140 feet, having concrete side walls, with steel "I" beam ceiling, lagged with concrete slabs.

Two Jeffrey coal cutting machines and one low-stage Ingersoll-Rand compressor, 2,800 cubic feet capacity, were installed.

On the loaded side of the shaft bottom for a distance of fifty feet, and on the empty side for a distance of seventy-five feet, concrete side walls and steel "I" beams, covered with reinforced concrete laggings, were built.

An automatic steam empty-car lift was installed at the bottom of shaft, the first of the kind to be installed at any of the Frick Coke Company's mines.

Four permanent overcasts and fifty-one permanent stoppings, of fireproof construction, were built.

Continental No. 1.—Beyond the terminus of the present brick Arch, on loaded car side of shaft bottom, rubble masonry side walls, with steel "I" beam ceiling, were constructed for a distance of one hundred and fifteen feet, in order to secure additional protection for workmen.

A part of the air shaft was retimbered as a safety precaution.

The underground rope haulage was extended in the southeast, northwest, and on the Pike Flat Sections.

Five permanent overcasts and five permanent stoppings, of fire-proof construction, were built.

Continental No. 2.—A compressed air motor haulage was completed.

Four Jeffrey mining machines, puncher type, were installed. One permanent overcast and five stoppings, of fire-proof construction, were built.

Continental No. 3.—Two permanent overcasts and twenty-three permanent stoppings, of fire-proof construction, were built.

Crossland.—Five permanent overcasts and three permanent stoppings, of fire-proof construction, were built.

Hopwood.—Two permanent overcasts and eleven permanent stoppings, of fire-proof construction, were built.

Kyle.—Fifteen 28 foot by 32 foot double dwellings, complete, with outbuildings and water system for domestic use and fire protection, were completed.

Six permanent overcasts and ten permanent stoppings, of fire-proof construction, were built.

Leckrone.—Installed one 7-ton electric gathering locomotive.

Two permanent overcasts and forty-five permanent stoppings, of fire-proof construction, were built.

Leith.—A fire-proof roof, with steel trusses, was put on the boiler house, replacing the former wooden one.

Three permanent overcasts and seven permanent stoppings, of fire-proof construction, were built.

Oliphant.—An auxiliary air shaft was sunk from the surface to the coal seam in the vicinity of No. 11 Flat South, for an additional exit from the mine, and to assist in the efficiency of ventilation in the advance workings.

One permanent overcast, of fire-proof construction, was built.

Redstone.—The safety lamp equipment was changed from the old Clanny type to the Seippel lamp.

Three permanent overcasts and two permanent stoppings, of fire-proof construction, were built.

Shoaf.—One 7-ton Jeffrey gathering electric locomotive was installed.

Three permanent overcasts and thirty-two permanent stoppings, of fire-proof construction, were built at No. 1, and thirty-two stoppings, of fire-proof construction, were built at No. 2, or Smiley.

Yorkrun.—Additional mine pumping equipment, with necessary transformers, bore hole, etc., was started, but not completed.

Three permanent overcasts and twenty-five permanent stoppings, of fire-proof construction, were built.

OLIVER AND SNYDER STEEL COMPANY

Oliver No. 1.—A central pumping station installed, which will handle all the water from the Nos. 1, 2 and 3 plants.

Oliver No. 2.—A room has been driven into the strata near the shaft bottom and has been fitted and equipped with electric lights, hot and cold water, stretchers, blankets, linseed and olive oil, bandages, linen etc., to be used in case of emergencies.

In each rib section of these mines rib-bosses have been employed, their only duty being to look after the falls and timbering. Shot-firers have also been employed to do the shooting at night when all of the workmen are out of the mine. Only permissible explosives are used.

W. J. RAINEY

Revere.—A water wagon for sprinkling the dust has been installed. Safety lamps are used exclusively. The blasting is done with permissible explosives, when the workmen are out of the mine, except those engaged in the work. The development work in this mine is completed. Four permanent overcasts and ten permanent stoppings have been built.

BESSEMER COKE COMPANY

Griffin No. 1.—A water wagon has been installed to sprinkle the dust and shot-firers are employed to do the blasting when the workmen are out of the mine.

Griffin No. 2.—A pipe line sprinkling system has been installed to take care of the dust. An auxiliary fan fourteen feet in diameter, Cole type, has been installed. A rescue station has been erected near the mouth of the mine and is equipped with three helmets of the Draeger type and three electric safety lamps.

S. L. SMITH AND COMPANY

Evans.—The air ways of this mine have been enlarged and five permanent stoppings have been constructed.

GILMORE COKE COMPANY

Gilmore.—A new six-foot fan has been installed.

PLUMER COKE COMPANY

Plumer.—Safety lamps have been installed exclusively, and five permanent stoppings have been built.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Court House, Uniontown, April 6, 7, 8 and 9. The Board of Examiners was composed of I. G. Roby, Inspector; George H. Reynolds, Superintendent; and John F. Dawson, Mine Foreman.

There were twenty-eight applicants examined for mine foremen's certificates and fifty for fire bosses' certificates. The following persons passed a satisfactory examination and were granted certificates of qualification as Mine Foremen:

First Grade

Mike Peters, William Hughes, Charles A. Wilson, Edward Wilkinson, Owen Thomas, Walter M. Dawson, James Curry, Edward McArdle.

Second Grade

Charles Moran, Ernest Krause.

SIXTH DISTRICT

Johnstown, Pa., February 25, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines of the Sixth Bituminous District for the year ending December 31, 1909.

I was transferred to this district July 1, 1909, from the Ninth District.

The port contains the usual tables of statistics, together with remarks on general conditions of the mines, the report of the annual examination of candidates for certificates as Mine Foremen and Fire Bosses, and a brief description of fatal accidents.

Respectfully submitted,

THOMAS D. WILLIAMS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	74
Number of mines in operation,	66
Number of tons of coal shipped to market,	6,722,543
Number of tons used at mines for steam and heat,	184,959
Number of tons sold to local trade and used by employes..	111,433
Number of tons used in the manufacture of coke,	814,180
Number of tons of coal produced,	7,833,115
Number of tons of coke produced,	581,341
Number of coke ovens,	425
Number of coke ovens in operation,	385
Number of tons of coal produced by pick mining,	4,379,208
Number of tons produced by compressed air machines,...	2,899,660
Number of tons produced by electrical machines,	554,247
Number of persons employed inside of mines,	10,112
Number of persons employed outside, including coke workers,	1,466
Number of persons employed at manufacture of coke, ..	293
Number of fatal accidents inside of mines,	54
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	82
Number of non-fatal accidents outside,	4
Number of tons of coal produced per fatal accident inside,	145,058
Number of persons employed per fatal accident inside,....	187
Number of persons employed per fatal accident outside,...	733
Number of persons employed per non-fatal accident inside,	123
Number of persons employed per non-fatal accident outside,	367
Number of wives made widows,	22
Number of children made orphans,	51
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	7
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	93
Number of electric motors used outside,	———
Number of fans in use,	56
Number of furnaces in use,	8
Number of gaseous mines in operation,	11
Number of non-gaseous mines in operation,	55
Number of new mines opened,	———
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Name of Operators	Tons
Berwind-White Coal Mining Company,	2,599,073
Cambria Steel Company,	1,655,553
Logan Coal Company,	475,255
Pennsylvania Coal and Coke Company,	356,349
Stineman Coal and Coke Company,	330,747
Argyle Coal Company,	273,416
Henrietta Coal Mining Company,	250,294
Stineman Coal Mining Company,	214,271
South Fork Coal Mining Company,	213,198
Valley Coal and Stone Company,	200,841
J. Blair Kennerly,	141,641
Alton Coal Company,	124,851
Shade Coal Mining Company,	115,193
Sunnyside Coal Company,	111,830
Loyalhanna Coal and Coke Company,	107,379
Citizens Coal Company,	85,345
Morrellville Coal Mining Company,	65,891
Priscilla Coal Mining Company,	64,363
Ninevah Coal and Coke Company,	53,182
Ray Coal Company,	51,960
Beaver Run Coal Company,	51,062
Cambria Coal Mining Company,	41,387
Suppes Coal Company,	38,953
Yellow Run Coal Mining Company,	34,359
Blairsville Coke Company,	32,053
Samuel Styer,	29,860
Maryland Coal Company,	25,176
Ingleside Coal Company,	19,062
A. J. Haws and Sons, Limited,	16,016
Ferndale Coal Company,	11,920
Oliver Stineman,	10,968
Highland Coal Company,	9,702
Kelso Smokeless Coal Company,	6,635
Harvey Stineman,	4,570
Bolivar Coal and Coke Company,	1,745
Johnstown Coal Company,	9,015
Total,	7,833,115

Production by Counties

Cambria,	6,040,005
Somerset,	1,606,318
Westmoreland,	93,764
Indiana,	93,028
Total,	7,833,115

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Berwind-White Coal Mining Co.,	18		18	30	3	33	144,398	86,636	3,292	433	3,725	183		110	144
Cambria Steel Co.,	22		22	16		16	75,252	103,472	1,771	441	2,212	81		111	
Logan Coal Co.,	2		2	3		3	237,628	158,418	592	47	639	296		197	
Pennsylvania Coal and Coke Co.,	3		3	5		5	118,783	71,270	679	65	744	226		136	
Stineman Coal and Coke Co.,				2		2		165,374	378	32	410			189	
Argyle Coal Co.,		1	1	2		2		136,708	363	49	412		49	181	
Henrietta Coal Mining Co.,				2	1	3		125,147	348	34	382			174	34
Stineman Coal Mining Co.,	1		1	1		1	214,271	214,271	264	22	286	264		264	
South Fork Coal Mining Co.,	3		3				71,066		296	38	334	99			
Valley Coal and Stone Co.,				5		5		40,168	217	26	243			43	
J. Blair Kennerly,	1		1	1		1	141,641	141,641	256	25	281	256		256	
Alton Coal Co.,				1		1		124,851	124	10	134			124	
Sunnyside Coal Co.,				2		2		55,915	141	24	165			71	
Loyalhanna Coal and Coke Co.,	1		1				107,379		137	16	153	137			
Citizens Coal Co.,				2		2		42,673	142	11	153			71	
Morrellville Coal Mining Co.,	1		1	2		2	65,891	32,946	88	8	96	88		44	
Priscilla Coal Mining Co.,				1		1		64,363	66	8	74			66	
Ninevah Coal and Coke Co.,	1		1				53,182		65	13	78	65			
Ray Coal Co.,				1		1		51,960	44	5	49			44	
Yellow Run Coal Mining Co.,				3		3		11,453	94	17	111			31	
Maryland Coal Co.,	1	1	2	2		2	25,176	12,588	93	47	140	93	47	47	
Oliver Stineman,				1		1		10,968	67	7	74			67	
Miscellaneous Companies,									595	88	683				
Totals and averages for district,	54	2	56	82	4	86	145,058	95,526	10,112	1,466	11,578	187	733	123	367

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	1	2	----	----	----	----	1	----	----	----	----	4	7.41
Falls of slate,	----	1	----	1	1	1	1	----	1	2	1	1	10	18.52
Falls of roof,	----	1	----	1	1	----	----	----	----	1	1	2	7	12.96
Mine cars,	1	----	----	----	----	1	----	1	1	----	2	1	7	12.96
Explosions of gas and dust,	----	----	----	7	----	----	----	----	----	13	----	----	20	37.04
Explosions of powder and dynamite,	----	----	----	----	----	----	----	----	1	----	----	----	1	1.85
Machinery,	----	----	----	----	----	----	----	----	1	----	----	----	1	1.85
Electricity,	----	----	----	----	1	----	1	----	----	----	----	----	2	3.71
Miscellaneous,	----	----	----	----	----	----	1	----	1	----	----	----	2	3.70
Totals,	1	3	2	9	3	2	3	2	5	16	4	4	54	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	1	----	----	1	50.00
Miscellaneous,	----	----	----	----	----	----	----	----	1	----	----	----	1	50.00
Totals,	----	----	----	----	----	----	----	----	1	1	----	----	2	100.00
Grand totals inside and outside,	1	3	2	9	3	2	3	2	6	17	4	4	56	------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	----	2	1	2	4	----	2	1	2	4	5	25	30.49
Falls of slate,	2	1	1	----	4	----	----	4	----	1	1	1	15	18.29
Falls of roof,	1	----	----	----	----	1	----	----	----	----	----	----	2	2.44
Mine cars,	2	3	3	----	6	3	2	5	2	2	1	2	31	37.80
Explosions of gas and dust,	----	----	----	----	----	----	----	----	----	2	----	----	2	2.44
Explosions of powder and dynamite,	----	----	----	----	----	----	----	----	1	----	----	----	1	1.22
Blasts, premature and otherwise,	----	----	----	----	----	----	1	1	----	----	1	----	3	3.66
Mules,	----	1	----	----	----	----	----	----	----	----	----	----	1	1.22
Electricity,	----	1	----	----	----	----	----	----	----	----	----	----	1	1.22
Miscellaneous,	1	----	----	----	----	----	----	----	----	----	----	----	1	1.22
Totals,	8	6	6	1	12	8	3	12	4	7	7	8	82	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	1	----	----	----	----	1	2	50.00
Machinery,	----	----	----	----	----	----	----	1	----	----	----	----	1	25.00
Miscellaneous,	1	----	----	----	----	----	----	----	----	----	----	----	1	25.00
Totals,	1	----	----	----	----	----	1	1	----	----	----	1	4	100.00
Grand totals inside and outside,	9	6	6	1	12	8	4	13	4	7	7	9	86	------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	3	2	3	3	2	2	1	4	5	3	3	32
Drivers and runners,	----	----	----	----	----	----	----	1	----	----	----	----	1
Doorboys and helpers,	----	----	----	----	----	----	1	----	----	----	----	----	1
Company men,	----	----	----	6	----	----	----	----	1	11	1	1	20
Totals,	1	3	2	9	3	2	3	2	5	16	4	4	54
Outside													
Company men,	----	----	----	----	----	----	----	----	1	1	----	----	2
Totals,	----	----	----	----	----	----	----	----	1	1	----	----	2
Grand totals inside and outside,	1	3	2	9	3	2	3	2	6	17	4	4	56

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Miners,	5	4	3	1	7	6	1	7	3	5	7	7	56
Machine runners,	1	----	----	----	----	----	----	----	----	----	----	----	1
Machine loaders,	----	----	----	----	1	----	----	----	----	----	----	----	1
Machine scrapers,	----	----	----	----	1	----	----	----	----	----	----	----	1
Drivers and runners,	2	1	2	----	1	2	1	2	----	----	----	1	12
Company men,	----	----	1	----	2	----	1	3	1	2	----	----	10
Totals,	8	6	6	1	12	8	3	12	4	7	7	8	82
Outside													
Blacksmiths and carpenters,	----	----	----	----	----	----	----	1	----	----	----	----	1
Trackmen,	----	----	----	----	----	----	----	----	----	----	----	1	1
Company men,	1	----	----	----	----	----	1	----	----	----	----	----	2
Totals,	1	----	----	----	----	----	1	1	----	----	----	1	4
Grand totals inside and outside,	9	6	6	1	12	8	4	13	4	7	7	9	86

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1		1	3				1	1	3			10
English,										2			2
Welsh,										1			1
Irish,										1		1	2
Polish,		1		5	1		2	1	1	2			13
Hungarian,					1		1		2	1	1		6
Italian,		1								2	1		4
Slavonian,		1		1	1	2				5	2	1	13
Austrian,			1										1
Greek,									1				1
Belgian,												1	1
Croatian,									1			1	2
Totals,	1	3	2	9	3	2	3	2	6	17	4	4	56

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	2		5	2		2			2		15
English,	1					1							2
Welsh,								1					1
Scotch,		1											1
German,	2									1		2	5
Polish,	1	2	1		4	1	1	3			3		16
Hungarian,	1				1		1			3		1	7
Italian,			2			1	1	2	2	2	1	2	13
Slavonian,	1		1		2	3	1	4	2		1	4	19
Austrian,	1			1									2
Russian,		2											2
French,	1							1					2
Magyar,										1			1
Totals,	9	6	6	1	12	8	4	13	4	7	7	9	86

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge—developed in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Berwind-White Coal Mining Co.																
Eureka No. 32,	Drift,	Non-gas.	Fan,	11	6.6	4.8	140	2.	Capell,	Electricity,		3	53,900	21,000	56,000	151
Eureka No. 33,	Drift,		Fan,	11	4.4	4.8	130	1.5	Capell,	Electricity,		4	57,400	24,000	58,500	111
Eureka No. 34,	Drift,		Fan,	12.6	5	5.6	150	2.25	Capell,	Electricity,		4	70,000	28,000	72,000	219
Eureka No. 35,	Drift,		Fan,	9	6	4	190	2.5	Sirocco,	Electricity,		27	190,000	67,000	195,000	637
Eureka No. 35, Upper,	Drift,		Fan,	7	4	3	225	.5	Stine,	Electricity,		4	30,800	17,000	39,000	53
Eureka No. 36,	Drift,		Fan,	16	6.1	7.2	124	1.9	Capell,	Electricity,		40	136,500	40,950	139,000	730
Eureka No. 37,	Drift,		Fan,	16	6.1	7.2	160	3	Capell,	Steam,		9	156,800	53,600	159,000	354
Eureka No. 37, Upper,	Drift,		Fan,	7	1.6	3	320	.5	Stine,	Electricity,		5	46,000	25,000	49,000	119
*Eureka No. 38,	Drift,		Fan,	16	6.1	7.2	100	2.5	Capell,	Electricity,						
Eureka No. 40,	Drift,		Fan,	29	6.1	9.3	78	2	Capell,	Electricity,		27	105,000	61,000	107,000	605
**Eureka No. 41,	Drift,		Fan,	7	1.6	3	320	.5	Stine,	Electricity,						
Eureka No. 42,	Drift,		Fan,	7	1.6	3	400	.6	Stine,	Electricity,		13	38,000	22,000	40,000	313
Cambria Steel Co.																
Rolling Mill,	Drift,	Gaseous,	Fan,	25	4	12	112	6	Capell,	Steam,		11	232,410	100,950	240,000	743
Franklin No. 1,	Drift,	Non-gas.	Fan,	12	4.5	5	140	2.5	Capell,	Steam,		7	65,000	29,163	69,163	444
Franklin No. 2,	Slope,	Gaseous,	Fan,	12	4	4	224	3.4	Sturdevant.	Electricity,		7	84,000	51,910	86,000	498
Conemaugh Slope,	Slope,	Gaseous.	Fan,	12	4	4	105	1.8	Brazil,	Steam,		2	28,800	18,230	29,000	86

*Idle the entire year.

**Idle last nine months of the year.

Logan Coal Co.																
Logan No. 1,	Slope,	Non-gas.	Fan,	10	2.6	4	168	.4				2	21,000	6,100	22,000	97
Logan No. 2,	Drift,		Fan,	16	5	4	80	1				6	38,400	11,300	38,800	141
Logan No. 4,	Slope,		Fan,	16	5	5.5	130	2.3	Brazil,	Steam,		7	56,400	46,000	60,000	307
*Logan No. 6,	Drift,		Fan,	16	5	5.5										
Logan No. 7,	Drift,		Fan,	12	4	3.3	90	.8				1	19,000	7,000	20,000	47
Pennsylvania Coal and Coke Co.																
Pennsylvania No. 3,	Drift,	Gaseous,	Fan,	16	4.5	4.5	120		Vulcan,	Electricity,		6	67,500	48,900	77,000	336
			Fan,	13	4.5	6	100	1.3	Capell,	Steam,						
Pennsylvania No. 5,	Slope,	Gaseous,	**													
Pennsylvania Nos. 6 and 8,	Drifts,	Non-gas.	Fan,	12	3.5	4	130	1	Brazil,	Electricity,		2	40,000	14,400	42,000	159
Pennsylvania No. 15,	Shaft,	Non-gas.	Fan,	12	1.8	5.5	90	.6	Stine,	Steam,		2	28,000	6,250	29,000	184
Stineman Coal and Coke Co.																
Stineman No. 2,	Drift,	Gaseous,	Fan,	16.4	6.2	7	140	1.6	Robinson,	Steam,		3	53,700	25,000	56,000	211
Stineman No. 4,	Slope,	Gaseous,	Fan,	16.4	6.2	7	170	3.0	Robinson,	Steam,		2	40,000	14,000	42,000	167
Argyle Coal Co.																
Argyle No. 1,	Drift,	Gaseous,	Fan,	8	4	3	130	1	Capell,	Steam,		4	35,800	24,600	39,000	155
Argyle No. 2,	Drift,	Gaseous,	Fan,	12	4	3	100	.8	Brazil,	Steam,		3	25,900	14,840	27,000	208
Henrietta Coal Mining Co.																
†Henrietta No. 1,	Shaft,	Non-gas.	Fan,									1				50
Henrietta No. 2,	Shaft,	Non-gas.	Fan,	20	7	6.2	90		Brazil,	Steam,		4	81,000	27,000	87,000	298
Stineman Coal Mining Co.																
Stineman No. 1,	Drift,	Non-gas.	Fan,	16	6	5	100	1	Vulcan,	Steam,		3	46,000	25,000	49,000	264
South Fork Coal Mining Co.																
South Fork No. 1,	Slope,	Gaseous,	Fan,	16	5	4	130	3	Brazil,	Steam,		5	48,000	37,000	50,000	189
South Fork No. 2,	Slope,	Non-gas.	Fan,	7	1.25	2.75	160	1	Stine,	Steam,		1	12,000	5,100	13,000	107
Valley Coal and Stone Co.																
Valley,	Drift,	Gaseous,	Fan,	16	5.2	6	85	1	Brazil,	Steam,		4	66,500	32,900	67,000	217
J. Blair Kennerly																
Valley No. 2,	Shaft,	Non-gas.	Fan,	16	3.5	4	80	.6	Brazil,	Steam,		2	31,650	6,000	33,000	93
Valley No. 3,	Drift,	Non-gas.	Fan,	12	4	3.6	70	.4	Brazil,	Steam,		2	27,400	8,150	27,900	158
Alton Coal Co.																
Alton,	Drift,	Non-gas.	Fan,	16	5.2	6	110	.8	Brazil,	Steam,		2	40,000	7,680	41,000	124

**Workings ventilated by fan at No. 3 mine.
†Ventilated by fan at No. 2 mine.

*Idle the entire year.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Shade Coal Mining Co.																
Hagevo,	Drift,	Non-gas.	Furnace,								30	2	12,000	5,000	12,800	101
Sunnyside Coal Co.																
Sunnyside	Drift,	Non-gas.	Fan,	8	4	3.5	210	.8	Robinson,	Steam,		2	33,300	19,600	35,000	141
*Berkabile,																
Loyalhanna Coal and Coke Co.																
Loyalhanna No. 3,	Drift,	Non-gas.	Fan,	12	4.8	5	125	1.5	Robinson,	Steam,		4	50,000	13,000		137
Citizens Coal Co.																
Dale,	Drift,	Non-gas.	Fan,	3.5	2.3	.4	175		Robinson,	Electricity,		1	16,500	5,600	17,000	34
Green Hill,	Slope,		Fan,	8	3	3.2	70		Brazil,			1	11,400	4,000	12,100	38
Gautier,	Slope,		Fan,	6	1.6	3	690	.3	Stine,			1	12,600	5,400	13,000	70
Morrellville Coal Mining Co.																
Morrellville,	Drift,	Non-gas.	Fan,	10	4	4.5	102	1	Capell,	Steam,		4	43,000	13,850	45,000	88
Priscilla Coal Mining Co.																
Priscilla,	Drift,	Non-gas.	Fan,	7	1.25	2.8	220		Stine,	Steam,		1	17,200	4,650	17,900	66

*Idle the entire year.

Ninevah Coal and Coke Co.																
Seward,	Drift,	Non-gas.	Fan,	16	7	5	50		Guibal,	Steam,		3	43,000	33,450	45,000	65
Ray Coal Co.																
Ray,	Drift,	Non-gas.	Furnace,								50	4	30,000	14,100	31,000	44
Beaver Run Coal Co.																
Beaver Run Nos. 1 and 2,	Slope, Drift,	Non-gas.	Fan,	12	1.6	5.5	216	.6	Stine,	Steam,		3	36,000	11,400	39,000	90
Cambria Coal Mining Co.																
Lloydell,	Drift,	Non-gas.	Fan,	7	1.3	3	250		Stine,	Steam,		1	17,000	8,000	18,000	73
Suppes Coal Co.																
Suppes,	Drift,	Non-gas.	Fan,	1.5	1	.2	900		Robinson,	Electricity,			5,400	5,400	5,800	28
Yellow Run Coal Mining Co.																
Yellow Run Shaft,	Shaft,	Non-gas.	Fan,	15.	4.5	4.3	60	.6	Brazil,	Steam,		2	30,000	20,800	33,000	94
Plairsville Coke Co.																
Strangford,	Drift,	Non-gas.	Fan,	12	3.8	3.5	96	.9	Brazil,	Steam,		3	56,000	12,400	58,000	45
Samuel Styer																
‡Radnor,	Drift,	Non-gas.	Furnace,								12	1		2,000	2,000	39
Maryland Coal Co.																
Coleman Shaft,	Shaft,	Non-gas.	Steam,									1	28,000	28,000	29,000	93
Ingleside Coal Co.																
Ingleside,	Drift,	Non-gas.	Fan,	12	3.6	4	50		Brazil,	Electricity,		1	16,000	3,780	16,900	21
A. J. Haws and Sons, Limited																
Haws Shaft,	Shaft,	Non-gas.	Fan,	12	4	3	50	.5	Brazil,	Steam,		1	16,660	5,400	17,000	23
Coopersdale,	Drift,	Non-gas.	Natural,									1	1,000	200	1,100	12
Ferndale Coal Co.																
Ferndale,	Drift,	Non-gas.	Fan,	6	1.5	1.5	240	.5	Brazil,	Electricity,		1	12,800	6,000	13,000	19
Oliver Stineman																
Stineman No. 3, Stineman No. 3½,	Drifts,	Non-gas.	Furnace,									1	9,250	4,800	9,550	67
Highland Coal Co.																
Highland,	Drift,	Non-gas.	Furnace,									1	14,700	9,600	15,000	14

‡Could not measure inlet owing to broken surface.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Kelso Smokeless Coal Co. Kelso,	Drift,	Gaseous,	Fan,	16	5	5.5	66	.7	Brazil,	Steam,		1	24,750	13,500	25,300	47
Harvey Stineman Stineman No. 5, Stineman No. 6,	Drifts,	Non-gas.	Furnace,								36	1	11,000	6,000	10,000	34
Bolivar Coal and Coke Co. ‡‡Lockport,	Drift,	Non-gas.	Furnace,								56	1				25
Johnstown Coal Co. Cramer,	Drift,	Non-gas.	Fan,	12	4	3	40		Brazil,	Steam,		1	9,000	4,000	9,300	15
Commonwealth Coal and Coke Co. *Commonwealth,	Drift,	Non-gas.	Fan,	7	1.4	3			Stine,	Steam,						
Reese-Hammond Fire Brick Co. *Indiana Nos. 1, 2 and 3,	Drifts,	Non-gas.	Furnace,													

*Idle the entire year.
‡‡Idle the entire year with the exception of 18 days in December.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches: Thickest	Height of seam in inches: Thinnest	Approximate number of tons produced by machines
Berwind-White Coal Mining Co.,	Eureka No. 32,	Drift,	Non-gas.	1	Electricity,	B, or Miller,	44	54	36	123,980
	Eureka No. 33,			4	Electricity,	B, or Miller,	44	48	36	148,050
	Eureka No. 34,			31	Compressed Air,	B, or Miller,	44	48	36	162,480
	Eureka No. 35,			51	Compressed Air,	B, or Miller,	44	52	36	417,965
	Eureka No. 35, Upper,			7	Electricity,	C, Prime,	62	66	60	8,542
	Eureka No. 36,			53	Compressed Air,	B, or Miller,	42	46	36	586,866
	Eureka No. 37,			64	Compressed Air,	B, or Miller,	48	66	42	367,320
	Eureka No. 37, Upper,			6	Electricity,	C, Prime,	62	66	60	109,925
	Eureka No. 40,			43	Compressed Air,	B, or Miller,	45	50	36	498,710
	Eureka No. 41,			3	Compressed Air,	B, or Miller,	44	54	36	36,607
	Eureka No. 42,			31	Electricity,	B, or Miller,	42	46	36	147,628
Totals,				294						2,599,073
Cambria Steel Co.,	Rolling Mill,	Drift,	Gaseous,	29	Compressed Air,	C, Prime,	51	60	42	504,915
	Franklin No. 1,	Drift,	Non-gas.	4		C, Prime,	35	38	32	1,918
	Franklin No. 2,	Slope,	Gaseous,	6		B, or Miller,	42	50	34	196,639
Totals,				39						703,472

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches: Thickest	Height of seam in inches: Thinnest	Approximate number of tons produced by machines
Pennsylvania Coal and Coke Co.,	Pennsylvania No. 3,	Drift,	Gaseous,	24	Compressed Air,	B, or Miller,	43	46	40	15,791
	Pennsylvania Nos. 6 and 8.	Drifts,	Non-gas.	1	Electricity,	E, or Lemon,	48	54	42	25,122
Totals,				25						40,913
Argyle Coal Co.,	Argyle No. 1,	Drift,	Gaseous,	5	Compressed Air,	B, or Miller,	46	48	44	78,396
Blairsville Coke Co.,	Strangford,	Drift,	Non-gas.	8	Compressed Air,	E, or Upper Freeport.	46	48	44	32,053
Grand totals,				371						3,453.907

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Berwind-White Coal Mining Co.						
Eureka Nos. 32, 33, 34, 35, 35 Upper and 36,	Somerset,	W. R. Calverley,	Windber,	D. A. Thomas,	Windber,	Pennsylvania
Eureka Nos. 37 and 37 Upper,	Cambria,					
*Eureka No. 38,	Somerset,					
Eureka No. 40,	Cambria,					
Eureka No. 41,	Somerset,					
Eureka No. 42,	Cambria,					
Cambria Steel Co.						
Rolling Mill,	Cambria,	M. G. Moore,	Johnstown,	George T. Robinson,	Johnstown,	Coal used by Company
Franklin Nos. 1 and 2,						
Conemaugh Slope,						
Logan Coal Co.						
Logan No. 1,	Cambria,	I. A. Boucher,	Beaverdale,	William Blackburn, Jr.	Dunlo,	Pennsylvania
Logan No. 2,				Frank Boyd,	Beaverdale,	
Logan No. 4,				Arthur Appleyard,	Beaverdale,	
*Logan No. 6,				William Blackburn, Jr.	Dunlo,	
Logan No. 7,						
Pennsylvania Coal and Coke Co.						
Pennsylvania Nos. 3 and 5,*	Cambria,	J. M. Marstellar,	Cresson,	J. W. Harrison,	Ehrenfeld,	Pennsylvania
Pennsylvania Nos. 6 and 8,						
Pennsylvania No. 15,						
Stineman Coal and Coke Co.						
Stineman No. 2,	Cambria,	W. I. Stineman,	South Fork,	Jonathan Andrews,	South Fork,	Pennsylvania
Stineman No. 4,				J. B. Dunmire,		

*Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Argyle Coal Co.						
Argyle Nos. 1 and 2,	Cambria,	G. W. Hutchinson,	Greensburg,	Richard Pardoe,	South Fork,	Pennsylvania
Henrietta Coal Mining Co.						
Henrietta Nos. 1 and 2,	Cambria,			B. E. Phillips,	Dunlo,	Pennsylvania
Stineman Coal Mining Co.						
Stineman No. 1,	Cambria,	W. I. Stineman,	South Fork,	H. Fessler,	South Fork,	Pennsylvania
South Fork Coal Mining Co.						
South Fork No. 1,	Cambria,			A. C. Cook,	South Fork,	Pennsylvania
South Fork No. 2,				James Callaghan,	South Fork,	
Valley Coal and Stone Co.						
Valley,	Cambria,	J. Blair Kennerly,	Philadelphia,	Charles S. Ling,	Johnstown,	B. and O.
J. Blair Kennerly						
Valley No. 2,	Westmoreland.	C. A. Buch,	Philadelphia,	Charles E. Pfordt,	Seward,	Pennsylvania
Valley No. 3,	Cambria,			R. J. Wentz,	Mineral Point,	
Alton Coal Co.						
Alton,	Cambria,	J. Blair Kennerly,	Philadelphia,	D. J. Mullhollen,	Lloydell,	Pennsylvania
Shade Coal Mining Co.						
Hagevo,	Somerset,			William Gahagan,	Arrow,	Pennsylvania
Sunnyside Coal Co.						
Sunnyside,	Cambria,	George B. Glenn,	Johnstown,	Samuel Mears,	Johnstown,	B. and O.
*Berkabile,						
Loyalhanna Coal and Coke Co.						
Loyalhanna No. 3,	Cambria,			Joseph Patterson,	Onnalinda,	Pennsylvania

*Idle.

Citizens Coal Co. Dale, Green Hill, Gautier,	Cambria,	John K. Bole,	Johnstown,	John Donaldson, John Kulp, Reese Johns,	Johnstown, Johnstown, Johnstown,	Local use B. and O. Pennsylvania
Morrellville Coal Mining Co. Morrellville,	Cambria,			George W. Griffith,	Johnstown,	Pennsylvania
Priscilla Coal Mining Co. Priscilla,	Cambria,	Charles E. Potter,	Portage,			Pennsylvania
Ninevah Coal and Coke Co. Seward,	Westmoreland.	M. J. Bracken,	Gallitzin,	W. J. Regan,	Seward,	Pennsylvania
Ray Coal Co. Ray,	Indiana,	Thomas Maher,	Blairsville,			Pennsylvania
Beaver Run Coal Co. Beaver Run Nos. 1 and 2,	Cambria,	C. F. Fraser,	Beaverdale,	W. H. Booth,	Beaverdale,	Pennsylvania
Cambria Coal Mining Co. Lloydell,	Cambria,			John F. McCann,	Lloydell,	Pennsylvania
Suppes Coal Co. Suppes,	Cambria,	C. H. Suppes, Jr.,	Johnstown,	D. J. Davis,	Johnstown,	Local trade
Yellow Run Coal Mining Co. Yellow Run Shaft,	Cambria,			E. C. Northover,	Dunlo,	Pennsylvania
Blairsville Coke Co. Strangford,	Indiana,	W. P. Graff,	Blairsville,			Pennsylvania
Samuel Styer Radnor,	Cambria,	Samuel Styer,	Philadelphia,	James R. Huston,	Mineral Point,	Pennsylvania
Maryland Coal Co. Coleman Shaft,	Cambria,	Frank E. Brackett,	Cumberland, Md.,	F. Ernest Brackett,	St. Michael,	Pennsylvania
Ingleside Coal Co. Ingleside,	Cambria,			William T. Moss,	Johnstown,	B. and O.
A. J. Haws and Sons, Limited Haws Shaft, Coopersdale,	Cambria,	James P. Thomas,	Johnstown,	William Oppey,	Johnstown,	Pennsylvania

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Ferndale Coal Co. Ferndale,	Cambria,			William Wolford,	Johnstown,	B. and O.
Oliver Stineman Stineman Nos. 3 and 3½,*	Cambria,	O. M. Stineman,	South Fork,			Pennsylvania
Highland Coal Co. Highland,	Cambria,			S. B. Sipe,	Johnstown,	Local trade
Kelso Smokeless Coal Co. Kelso,	Somerset,	M. W. Saxman,	Latrobe,	George E. Loughner.	Johnstown,	B. and O.
Harvey Stineman Stineman Nos. 5 and 6,	Cambria,	H. C. Stineman,	South Fork,			Pennsylvania
Bolivar Coal and Coke Co. Lockport,	Westmoreland.	George H. Anderson,	Pittsburg,	John McHail,	Bolivar,	Pennsylvania
Johnstown Coal Co. Cramer,	Indiana,			H. K. Hodge,	Greensburg,	Pennsylvania
Reese-Hammond Fire Brick Co. *Indiana Nos. 1, 2 and 3,	Indiana,	J. B. Hammond,	Bolivar,			Pennsylvania
Commonwealth Coal and Coke Co. *Commonwealth,	Indiana,			John Huston,	New Florence,	Pennsylvania

*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Berwind-White Coal Mining Co.																
Eureka No. 32,	Somerset,	123,980				123,980			232	172		3	17,000	500		
Eureka No. 33,	Somerset,	146,176	1,826	48		148,050			274	131			27,500	500		
Eureka No. 34,	Somerset,	154,737	7,596	147		162,480			274	253	1	1	30,000	500		
Eureka No. 35,	Somerset,	404,790	13,175			417,965			289	724	2	3	56,000	13,800		
Eureka No. 35, Upper,	Somerset,		6,136	2,406		8,542			285	54			4,000			
Eureka No. 36,	Somerset,	567,897	18,969			586,866			285	819	4	10	77,000	10,000		
Eureka No. 37,	Cambria,	359,772	7,164	384		367,320			277	425	2	5	70,000	4,000		
Eureka No. 37, Upper,	Cambria,	100,019	244	662		100,925			277	119	7		20,000	1,000		
Eureka No. 40,	Cambria,	483,432	15,258	20		498,710			286	677	1	5	95,000	600		
Eureka No. 41,	Somerset,	36,607				36,607			49		1					
Eureka No. 42,	Cambria,	146,809	1	818		147,628			295	351		6	19,000	1,150		
Totals,		2,524,249	70,339	4,485		2,599,073				3,725	18	33	415,500	32,050		
Cambria Steel Co.																
Rolling Mill,	Cambria,	723,992	25,697	44	6,274	756,007	581,216	372	276	839	4	5			65,350	78
Franklin No. 1,	Cambria,		1,494		397,495	398,989			296	477	2	4	64,855	21,000	5,900	125
Franklin No. 2,	Cambria,	17			410,211	410,228			286	799	16	6	51,245	39,950	14,300	86
Conemaugh Slope,	Cambria,	86,728	3,601			90,329			297	97		1	20,760	3,350	2,300	15
Totals,		810,737	30,792	44	813,980	1,655,553	581,216	372		2,212	22	16	136,860	64,300	87,850	304

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Logan Coal Co.																
Logan No. 1,	Cambria,	88,915	1,412	2,421	.....	92,748	.....	.....	229	109	.....	.....	3,500	200	.....	16
Logan No. 2,		103,405	1,316	491	.....	105,212	.....	.....	190	149	.....	.....	5,000	250	.....	12
Logan No. 4,		271,615	2,632	.....	.....	274,247	.....	.....	255	329	2	3	15,000	1,500	.....	28
Logan No. 7,		3,048	.....	.....	.....	3,048	.....	.....	26	52	.....	.....	300	25	.....	5
Totals,		466,983	5,360	2,912	.....	475,255	.....	.....	.....	639	2	3	23,800	1,975	.....	61
Pennsylvania Coal and Coke Co.																
Pennsylvania Nos. 3 and 5,	Cambria,	286,515	19,319	1,293	.....	307,127	.....	.....	301	549	2	5	30,000	2,800	2,100	32
Pennsylvania Nos. 6 and 8,		.....	.....	.....	.....	.....	.....	.....	244	.....	.....	.....	.....	.....	.....	2
Pennsylvania No. 15,		43,940	4,904	378	.....	49,222	.....	.....	123	195	1	.....	9,600	480	.....	16
Totals,		330,455	24,223	1,671	.....	356,349	.....	.....	.....	744	3	5	39,600	3,280	2,100	50
Stineman Coal and Coke Co.																
Stineman No. 2,	Cambria,	159,454	2,953	.....	.....	162,407	.....	.....	246	225	.....	1	15,660	.....	.....	14
Stineman No. 4,		162,340	6,000	.....	.....	168,340	.....	.....	296	185	.....	1	13,680	.....	.....	11
Totals,		321,794	8,953	.....	.....	330,747	.....	.....	.....	410	.....	2	29,340	.....	.....	25
Argyle Coal Co.																
Argyle No. 1,	Cambria,	105,126	272	.....	.....	105,398	.....	.....	230	167	1	2	22,000	2,480	.....	26
Argyle No. 2,		164,524	2,292	1,202	.....	168,018	.....	.....	248	245	.....	.....	33,000	3,720	.....	30
Totals,		269,650	2,564	1,202	.....	273,416	.....	.....	.....	412	1	2	55,000	6,200	.....	56

Henrietta Coal Mining Co.																
Henrietta No. 1,	Cambria,	17,196	289	772		18,257			104	54						4
Henrietta No. 2,		228,854	2,773	410		232,037			260	328		3	2,000	1,800		37
Totals,		246,050	3,062	1,182		250,294				328		3	2,000	1,800		41
Stineman Coal Mining Co.																
Stineman No. 1,	Cambria,	208,668		5,603		214,271			286	286	1	1	33,000			21
South Fork Coal Mining Co.																
South Fork No. 1,	Cambria,	146,699	11,258			157,957			298	220			7,400	2,120		20
South Fork No. 2,		53,646	1,595			55,241			255	114	3		3,600	1,030		6
Totals,		200,345	12,853			213,198				334	3		11,000	3,150		26
Valley Coal and Stone Co.																
Valley,	Cambria,	199,981	860			200,841			209	243		5	38,025	500		36
J. Blair Kennerly																
Valley No. 2,	Westmoreland,	35,538	1,240	2,059		38,837			196	114			5,665	1,617	2,427	12
Valley No. 3,	Cambria,	102,300	504			102,804			252	167	1	1	450	2,300		12
Totals,		137,838	1,744	2,059		141,641				281	1	1	6,115	3,917	2,427	24
Alton Coal Co.																
Alton,	Cambria,	122,861	1,200	790		124,851			283	134		1				22
Shade Coal Mining Co.																
Hagevo,	Somerset,	114,433	270	490		115,193			279	108			10,000	1,000		9
Sunnyside Coal Co.																
Sunnyside,	Cambria,	106,193		5,637		111,830			166	165		2	23,375	505		24
Loyalhanna Coal and Coke Co.																
Loyalhanna No. 3,	Cambria,	104,457	2,344	578		107,379			143	153	1					18
Citizens Coal Co.																
Dale,	Cambria,			33,955		33,955			277	39		2				4
Green Hill,		19,343				19,343			260	40						4
Gautier,		32,047				32,047			279	74						6
Totals,		51,390		33,955		85,345				153		2				14
Morrellville Coal Mining Co.																
Morrellville,	Cambria,	64,734	400	757		65,891			297	96	1	2	18,625	3,100		5
Priscilla Coal Mining Co.																
Priscilla,	Cambria,	63,463	900			64,363			243	74		1	13,000			10

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Ninevah Coal Mining Co.																
Seward,	Westmoreland,	52,995	960	127	.....	53,182	.....	.....	215	78	1	....	6,500	400	.....	14
Ray Coal Co.																
Ray,	Indiana,	51,960	.....	.....	.....	51,960	.....	.....	253	49	....	1	.....	.....	.....	3
Beaver Run Coal Co.																
Beaver Run Nos. 1 and 2,	Cambria,	49,726	1,097	239	.....	51,062	.....	.....	226	109	....	....	425	300	.....	11
Cambria Coal Mining Co.																
Lloydell,	Cambria,	40,794	375	218	.....	41,387	.....	.....	197	82	....	....	.....	.....	.....	7
Suppes Coal Co.																
Suppes,	Cambria,	.....	.....	38,953	.....	38,953	.....	.....	307	34	....	....	2,290	.....	.....	5
Yellow Run Coal Mining Co.																
Yellow Run Shaft,	Cambria,	29,781	4,367	211	.....	34,359	.....	.....	258	111	....	3	.....	.....	.....	14
Blairsville Coke Co.																
Strangford,	Indiana,	30,600	1,383	70	.....	32,053	.....	.....	234	51	....	....	10,125	110	.....	4
Samuel Styer																
Radnor,	Cambria,	29,640	220	.....	.....	29,860	.....	.....	228	41	....	....	5,500	.....	.....	4
Maryland Coal Co.																
Coleman Shaft,	Cambria,	14,616	9,910	650	.....	25,176	.....	.....	296	140	2	2	4,250	3,000	2,575	9

Ingleside Coal Co.																
Ingleside,	Cambria,	18,960	.....	102	.....	19,062	.....	.....	279	24	.....	.....	3,431	.....	.....	4
A. J. Haws and Sons, Limited																
Haws Shaft,	Cambria,	8,677	.....	.....	.....	8,677	.....	.....	178	30	.....	.....	1,500	1,700	.....	4
Coopersdale,		7,339	.....	.....	.....	7,339	.....	.....	298	14	.....	.....	1,760	1,253	.....	2
Totals,		16,016	.....	.....	.....	16,016	.....	.....	.....	44	.....	.....	3,260	2,953	.....	6
Ferndale Coal Co.																
Ferndale,	Cambria,	11,800	120	.....	.....	11,920	.....	.....	185	21	.....	.....	5,000	.....	.....	3
Oliver Stineman																
Stineman No. 3,	Cambria,	10,898	65	5	.....	10,968	.....	.....	70	74	.....	1	2,060	68	.....	7
Stineman No. 3½,																
Highland Coal Co.																
Highland,	Cambria,	.....	234	9,468	.....	9,702	.....	.....	296	24	.....	.....	1,000	.....	.....	2
Kelso Smokeless Coal Co.																
Kelso,	Somerset,	6,591	44	.....	.....	6,635	.....	.....	42	53	.....	.....	2,350	125	.....	1
Harvey Stineman																
Stineman No. 5,	Cambria,	4,570	.....	.....	.....	4,570	.....	.....	63	40	.....	.....	700	.....	.....	4
Stineman No. 6,																
Bolivar Coal and Coke Co.																
Lockport,	Westmoreland,	1,500	20	25	200	1,745	125	13	18	34	.....	.....	450	1,600	.....	2
Johnstown Coal Co.																
Cramer,	Indiana,	8,715	300	.....	.....	9,015	.....	.....	160	18	.....	.....	525	150	.....	2
Grand totals,		6,722,543	184,959	111,433	814,180	7,833,115	581,341	385	.....	11,578	56	86	903,106	130,483	94,952	848

TABLE 2—Part 2

Names of Operators	County	Number of Boilers: Cylindrical	Number of Boilers: Horse power	Number of Boilers: Tubular	Number of Boilers: Horse power	Number of Boilers: Total horse power	Locomotives: Steam	Locomotives: Air	Locomotives: Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
Berwind-White Coal Mining Co.	Somerset and Cambria.			29	8,700	8,700			60	8	8,500	14	5,500	5,275	8	9
Cambria Steel Co.,		8	2,200	8	550	2,750	1	7	3	16	3,985	27	5,020	3,483	1	12
Logan Coal Co.,				9	1,100	1,100			6	11	1,285	1	400	300	2	2
Pennsylvania Coal and Coke Co.,				16	2,700	2,700			8	19	2,720	4	1,900	1,000	7	6
Stineman Coal and Coke Co.,				5	750	750			3	5	600	4	820	710	1	2
Argyle Coal Co.,	Cambria,			6	305	305				4	200	2	250	80		1
Henrietta Coal Mining Co.,		3	225	6	850	1,075				9	650	1	600	350	1	
Stineman Coal Mining Co.,				3	450	450			5	3	350				1	
South Fork Coal Mining Co.,				6	700	700				9	700	2	600	350		3
Valley Coal and Stone Co.,				1	30	30			2	1	25				1	
J. Blair Kennerly,	Westmoreland and Cambria,			3	335	335				5	326	2	526	125		
Alton Coal Co.,		2	160			160				2	175	1	140	140		
Loyalhanna Coal and Coke Co.,	Cambria,			4	460	460			4	3	440	2	900	600	2	
Morrellville Coal Mining Co.,				1	187	187			1	1	100				1	
Priscilla Coal Mining Co.,				1	100	100				2	100					
Ninevah Coal and Coke Co.,	Westmoreland,			1	100	100				2	135	2	200	120		
Beaver Run Coal Co.,	Cambria,			2	140	140				1	50	1	225	100		1
Cambria Coal Mining Co.,	Cambria,			1	80	80				2	130					
Yellow Run Coal Mining Co.,	Cambria,			3	750	750				4	240	4	1,950	700		
Blairsville Coke Co.,	Indiana,			2	300	300				2	46	2	55	30		1

Maryland Coal Co.,	Cambria,			2	1,194	1,194				6	1,760	6	4,234	1,000	1		
A. J. Haws and Sons, Limited,	Cambria,			1	75	75				2	80	3	400	310			
Ferndale Coal Co.,	Cambria,			1	25	25				1	20	1	100	30			
Highland Coal Co.,	Cambria,	1	60			60				1	45						
Kelso Smokeless Coal Co.,	Somerset,	2	225			225			1	2	369				1		
Bolivar Coal and Coke Co.,	Westmoreland,			1	20	20				1	20						
Totals,		16	2,870	113	19,901	22,771	1	7	93	122	23,051	79	23,820	14,703	27	37	

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine Foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Door boys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Berwind-White Coal Mining Co.,	Somerset and Cambria.	10	21	----	1,791	83	785	83	92	5	422	------	3,292	----	8	39	57	----	4	325	433	3,725
Cambria Steel Co.,		6	4	12	707	31	459	31	117	43	190	171	1,771	1	1	25	21	287	10	96	154	1,925
Logan Coal Co.,		4	1	----	520	------	------	------	45	9	13	------	592	----	----	5	9	----	3	30	47	639
Pennsylvania Coal and Coke Co.		3	1	2	494	14	56	14	38	11	46	------	679	1	1	13	12	----	2	36	65	744
Stineman Coal and Coke Co.,	Cambria.	2	1	3	320	------	------	------	25	4	------	23	378	1	----	2	9	----	2	18	32	410
Argyle Coal Co.,		2	----	2	238	7	72	7	23	1	8	3	363	1	1	6	5	----	2	34	49	412
Henrietta Coal Mining Co.,		2	----	----	293	------	------	------	26	3	15	9	348	1	----	5	7	----	3	18	34	382
Stineman Coal Mining Co.,		1	1	1	220	------	------	------	21	4	------	16	264	1	----	1	3	----	1	16	22	286
South Fork Coal Mining Co.,		2	----	2	206	------	------	------	24	4	52	6	296	1	1	4	14	----	4	14	38	334
Valley Coal and Stone Co.,		1	1	2	170	------	------	------	21	14	------	8	217	1	----	2	2	----	3	18	26	243
J. Blair Kennerly,	Westmoreland and Cambria.	2	1	----	227	------	------	------	16	2	8	------	256	2	2	4	4	----	1	12	25	281
Alton Coal Co.,	Cambria.	1	1	----	106	------	------	------	11	3	2	------	124	1	----	1	3	----	1	4	10	134
Shade Coal Mining Co.,	Somerset.	1	----	----	90	------	------	------	6	------	4	------	101	1	----	1	----	----	1	4	7	108
Sunnyside Coal Co.,		1	1	----	120	------	------	------	12	5	------	2	141	1	----	3	1	----	3	16	24	165
Loyalhanna Coal and Coke Co.		1	1	----	115	------	------	------	16	------	4	------	137	1	----	3	3	----	1	8	16	153
Citizens Coal Co.,	Cambria.	3	----	----	130	------	------	------	9	------	------	------	142	1	----	----	----	----	1	9	11	153
Morrellville Coal Mining Co.,		1	----	----	77	------	------	------	5	------	3	2	88	1	----	2	----	----	1	4	8	96
Priscilla Coal Mining Co.,		1	----	----	55	------	------	------	7	1	1	1	66	1	----	1	2	----	1	3	8	74
Ninevah Coal and Coke Co.,	Westmoreland.	1	----	----	55	------	------	------	6	------	2	1	65	1	----	2	2	----	1	7	13	78
Ray Coal Co.,	Indiana.	1	----	----	40	------	------	------	2	------	1	------	44	1	----	----	----	----	1	3	5	49

Beaver Run Coal Co.,		1	1	....	39	4	41	4	7	.....	2	.....	99	1	....	2	3	....	1	3	10	109
Cambria Coal Mining Co.,	Cambria,	1	....	....	65	.....	.....	.....	5	.....	2	.....	73	1	....	1	1	....	1	5	9	82
Suppes Coal Co.,		1	....	....	24	.....	.....	.....	3	.....	.....	.....	28	1	....	....	....	....	1	4	6	34
Yellow Run Coal Mining Co.,		1	....	....	74	.....	.....	.....	8	1	10	.....	94	1	....	4	4	....	1	7	17	111
Blairsville Coke Co.,	Indiana,	1	....	....	21	8	.....	8	4	1	2	.....	45	....	....	1	3	....	....	2	6	51
Samuel Styer,		1	....	....	31	.....	.....	.....	4	.....	3	.....	39	....	....	....	....	....	....	2	2	41
Maryland Coal Co.,		1	1	....	71	.....	.....	.....	5	2	12	1	93	1	....	3	9	....	5	29	47	140
Ingleside Coal Co.,		1	....	....	18	.....	.....	.....	2	.....	.....	.....	21	1	....	1	....	....	....	1	3	24
A. J. Haws and Sons, Limited,	Cambria,	2	....	....	28	.....	.....	.....	4	.....	1	.....	35	2	....	....	1	....	2	4	9	44
Ferndale Coal Co.,		1	....	....	16	.....	.....	.....	1	.....	1	.....	19	....	....	....	1	....	....	1	2	21
Oliver Stineman,		1	....	....	56	.....	.....	.....	6	3	1	.....	67	1	1	1	....	....	....	4	7	74
Highland Coal Co.,		1	....	....	11	.....	.....	.....	2	.....	.....	.....	14	....	....	....	2	....	1	7	10	24
Kelso Smokeless Coal Co.,	Somerset,	1	....	1	41	.....	.....	.....	1	.....	3	.....	47	1	....	....	2	....	....	3	6	53
Harvey Stineman,	Cambria,	1	....	....	30	.....	.....	.....	3	.....	.....	.....	34	1	....	1	....	....	....	4	6	40
Bolivar Coal and Coke Co.,	Westmoreland,	1	....	....	18	.....	.....	.....	2	.....	3	1	25	1	....	....	1	6	....	1	9	34
Johnstown Coal Co.,	Indiana,	1	....	....	12	.....	.....	.....	2	.....	.....	.....	15	1	....	....	2	....	....	.....	3	18
Totals,		63	36	25	6,529	147	1,413	147	581	116	811	244	10,112	32	15	133	183	293	58	752	1,466	11,578

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Berwind-White Coal Mining Co.,	Somerset and Cambria.	19	18	23	23	23	23	21	21	23	22	21	21	258
Cambria Steel Co.,	Cambria,	24	24	26	23	21	21	23	24	25	26	26	26	289
Logan Coal Co.,	Cambria,	16	13	19	13	13	13	12	13	14	14	17	18	175
Pennsylvania Coal and Coke Co.,	Cambria,	17	9	13	8	11	12	11	12	19	19	18	18	167
Stineman Coal and Coke Co.,	Cambria,	22	19	27	23	22	22	22	19	22	23	24	26	271
Argyle Coal Co.,	Cambria,	21	17	18	14	16	19	18	23	25	22	23	23	239
Henrietta Coal Mining Co.,	Cambria,	25	18	26	22	12	13	10	12	10	12	11	11	182
Stineman Coal Mining Co.,	Cambria,	25	24	25	23	23	24	25	21	21	24	25	26	286
South Fork Coal Mining Co.,	Cambria,	25	23	21	24	25	22	19	23	25	22	24	24	277
Valley Coal and Stone Co.,	Cambria,	17	19	21	15	13	16	20	18	17	18	18	17	209
J. Blair Kennerly,	Westmoreland and Cambria.	12	11	12	18	21	20	19	21	20	24	23	23	224
Alton Coal Co.,	Cambria,	25	15	23	22	25	25	25	25	25	25	23	25	283
Shade Coal Mining Co.,	Somerset,	16	11	20	23	26	26	26	24	25	24	24	25	270
Sunnyside Coal Co.,	Cambria,	14	9	11	9	11	8	10	16	19	18	18	23	166
Loyalhanna Coal and Coke Co.,	Cambria,	14	8	7	15	13	7	11	7	9	16	21	15	143
Citizens Coal Co.,	Cambria,	25	23	26	23	20	19	19	20	21	25	26	25	272
Morrellville Coal Mining Co.,	Cambria,	26	21	23	26	26	23	25	26	26	24	25	26	297
Priscilla Coal Mining Co.,	Cambria,	23	17	27	15	14	15	22	20	22	21	24	23	243
Ninevah Coal and Coke Co.,	Westmoreland,	15	12	11	20	11	22	12	18	25	22	23	24	215
Ray Coal Co.,	Indiana,	25	21	26	16	12	15	21	18	22	25	26	26	253
Beaver Run Coal Co.,	Cambria,	19	18	26	17	13	11	26	26	22	16	17	15	226
Cambria Coal Mining Co.,	Cambria,	15	8	15	21	15	8	16	11	24	23	22	19	197
Suppes Coal Co.,	Cambria,	26	24	27	26	25	26	26	25	25	26	24	27	307
Yellow Run Coal Mining Co.,	Cambria,	25	23	27	26	25	26	15	21	18	17	18	17	258
Blairsville Coke Co.,	Indiana,	24	17	24	16	11	16	18	22	21	24	23	18	234
Samuel Styer,	Cambria,	16	15	21	20	23	18	22	20	25	20	14	14	228
Maryland Coal Co.,	Cambria,	27	25	28	27	27	26	23	24	22	20	23	24	295
Ingleside Coal Co.,	Cambria,	24	19	25	24	23	25	26	26	24	26	21	16	279
A. J. Haws and Sons, Limited,	Cambria,	18	17	18	24	19	19	19	19	19	19	22	25	238

Ferndale Coal Co.,	Cambria,	17	17	16	12	10	12	9	14	16	20	21	21	185
Oliver Stineman,	Cambria,	------	------	------	------	------	------	------	------	------	25	24	21	70
Highland Coal Co.,	Cambria,	26	24	27	26	24	22	19	23	26	26	26	27	296
Kelso Smokeless Coal Co.,	Somerset,	------	4	1	4	2	5	2	1	2	1	6	13	42
Harvey Stineman,	Cambria,	------	------	------	------	------	------	------	------	------	20	19	24	63
Bolivar Coal and Coke Co.,	Westmoreland,	------	------	------	------	------	------	------	------	------	------	------	18	18
Johnstown Coal Co.,	Indiana,	15	13	15	18	10	10	12	8	12	14	15	18	160

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 15	Christ C. Shaffer,	American,	Miner,	27	M	1		Eureka No. 34,	Somerset,	Instantly killed. Run over by electric motor while standing on haulage road.
Feb. 2	John Zaty,	Slavonian,	Miner,	35	M	1		Pennsylvania, No 3.	Cambria,	Killed by fall of coal while undermining at face of room.
	John Cone,	Polish,	Miner,	35	M	1	3	Eureka No. 36,	Somerset,	Fatally injured by fall of slate at face of working place.
19	Mike Ross,	Italian,	Miner,	19	S			Eureka No. 41,	Somerset,	Fatally injured by fall of roof at face of pillar work while removing his tools to a place of safety.
March 4	John Dubroski,	Austrian,	Miner,	26	M	1	1	Logan No. 4,	Cambria,	Fatally injured by fall of coal while undermining at face of room.
15	Ollie Bunton,	American,	Miner,	27	S			Stineman No. 1,	Cambria,	Instantly killed by fall of coal while undermining at face of working place.
April 8	Dushon Mavokovich,	Slavonian,	Miner,	20	S			Franklin No. 2,	Cambria,	Instantly killed by fall of slate while undermining coal at face of room.
9	William Gibson,	American,	Roadman,	22	S			Eureka No. 37, Upper	Cambria,	Killed instantly while blasting rock in fourth right heading by an explosion caused by an overcharged dynamite blast, which in turn ignited the dust.
	Joseph Kowats,	Polish,	Company man	30	S					
	Paul Meyernak,	Polish,	Company man	30	S					
	Metro Katopitz,	Polish,	Company man	26	S					
	Steve Nemis,	Polish,	Company man	26	M	1	1			
	Arthur Custer,	American,	Miner,	32	M	1	4			
	Michael Gibson,	American,	Company man	58	M	1	3			

April	15	Frank Chrosciel,	Polish,	Miner,	18	S			Rolling Mill,	Cambria,	Killed by fall of roof while shoveling coal at face of pillar.
May	5	Mike Dubloski,	Polish,	Miner,	60	S			South Fork No. 2,	Cambria,	Killed by fall of slate while mining coal in pillar work.
	8	Andrew Thomas,	Slavonian,	Miner,	22	S			Loyalhanna No. 3,	Cambria,	Instantly killed by fall of roof on main haulage road.
	20	Andrew Sackash,	Hungarian,	Miner,	20	S			Eureka No. 35,	Somerset,	Killed by an electric shock from contact with live trolley wire, while shifting his car on the heading.
June	21	Frank Kemock,	Slavonian,	Miner,	25	M	1	1	Eureka No. 36,	Somerset,	Instantly killed. Crushed between roller bar of mine wagon and roof on haulage road.
	22	John Latta,	Slavonian,	Miner,	19	S			South Fork No. 2,	Cambria,	Instantly killed by fall of slate near the face of pillar while mining coal.
July	13	Alex Katona,	Hungarian,	Miner,	32	S			Eureka No. 37,	Cambria,	Instantly killed by an electric shock from contact with live trolley wire on haulage road.
	16	George Buranse,	Polish,	Miner,	35	M	1	3	South Fork No. 2,	Cambria,	Killed by fall of slate on roadway near the face of pillar while preparing to go out.
	23	Leo Telinski,	Polish,	Doorboy,	17	S			Rolling Mill,	Cambria,	Fatally injured by being struck on forehead by a flying piece of board from a broken door.
Aug.	26	John Faitock,	Polish,	Miner,	22	S			Franklin No. 1,	Cambria,	Killed instantly by fall of coal while undermining at face of working place.
	28	Thomas Phillips,	American,	Runner,	32	S			Eureka No. 36,	Somerset,	Instantly killed. Crushed between electric motor and mine cars.
Sept.	4	Mike Lodica,	Croatian,	Miner,	24	M	1	1	Coleman Shaft,	Cambria,	Fatally injured by an explosion of black powder and dynamite while preparing a shot in his room.
	7	John Lutz,	Hungarian,	Miner,	20	S			Eureka No. 37,	Cambria,	Fatally injured by fall of slate while loading coal at face of working place.
	10	Peter Fern,	American,	Miner,	42	M	1	7	Pennsylvania No. 3.	Cambria,	Fatally injured. Crushed between electric motor and coal rib on haulage road.
	11	John Bala,	Polish,	Company man	22	S			Coleman Shaft,	Cambria,	Fatally injured by falling off coal tipple. Outside.
	21	Andy Samanda,	Greek,	Cager,	19	S			Rolling Mill,	Cambria,	Instantly killed by being crushed under moving cage.
	28	Emrey Falko,	Hungarian,	Miner,	48	M	1	4	Eureka No. 35,	Somerset,	Fatally injured. He struck his head against the roof in his working place.
Oct.	7	Samuel Lavely,	American,	Company man	37	M	1	2	Argyle No. 1,	Cambria,	Fatally injured. Crushed under mine cars on incline plane. Outside.
	14	Edward Alex,	American,	Miner,	60	M	1	1	Seward,	Westmoreland,	Instantly killed by fall of roof at face of pillar.
	18	Gab Hydock,	Hungarian,	Miner,	26	S			Eureka No. 36,	Somerset,	Killed instantly by fall of slate while loading coal at face of room.
	23	Frank Prudic,	Slavonian,	Miner,	38	S			Franklin No. 1,	Cambria,	Killed by fall of slate at face of working place.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Oct. 31	William Dyer,	English,	Timberman,	54	M	1	3			
	James Toole,	American,	Trackman,	32	S					
	James Jones,	Welsh,	Timberman,	60	M	1	2			
	Patrick Lee,	Irish,	Trackman,	22	S					
	Mike Billy,	Slavonian,	Trackman,	26	S					
	Drago Bika,	Slavonian,	Trackman,	21	S					
	Issac Abatto,	Slavonian,	Trackman,	30	S			Franklin No. 2,	Cambria,	Killed by an explosion of coal dust as a result of blasting coal from the solid.
	Robert Barr,	English,	Trackman,	22	S					
	Mike Waloski,	Slavonian,	Trackman,	45	S					
	Nick Tadaro,	Italian,	Trackman,	30	S					
	Sam Facon,	Italian,	Trackman,	28	S					
	Steve Pallock,	Polish,	Miner,	23	S					
	Joe Pallock,	Polish,	Miner,	22	S					
Nov. 12	Frank Moner,	Hungarian,	Miner,	40	M	1	2	Eureka No. 40,	Cambria,	Fatally injured by being crushed between mine cars and coal rib on haulage road.
	Steve Sakmar,	Slavonian,	Miner,	39	M	1	1	Rolling Mill,	Cambria,	Instantly killed by fall of roof while mining coal in pillar.
15	Mike Bernadi,	Italian,	Miner,	22	S			Valley No. 3,	Cambria,	Instantly killed by fall of slate while loading car at face of working place.
23	Majeor Oletski,	Slavonian,	Company man	23	M	1	2	Franklin No. 2,	Cambria,	Fatally injured. Crushed between electric motor and coal rib on haulage road.
Dec. 4	John Kindya,	Slavonian,	Miner,	38	M	1	5	Franklin No. 2,	Cambria,	Fatally injured. Caught by fall of roof while undermining coal at face of pillar.
20	William Lowry,	Irish,	Trackman,	65	S			Pennsylvania No. 15.	Cambria,	Fatally injured. Caught between loaded mine wagons and side of heading on haulage road.
28	Henri Wanters,	Belgian,	Miner,	37	M	1	4	Logan No. 4,	Cambria,	Instantly killed by fall of slate at entrance to his working place.
30	Jacob Markovitch,	Croatian,	Miner,	25	M	1	1	Morrellville,	Cambria,	Fatally injured by fall of roof while setting post at face of pillar.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 4	Mike Stanuk,	Polish,	Miner,	33	M	Rolling Mill,	Cambria,	Back broken. Caught by fall of roof at face of room.
5	Anton Zegalla,	Austrian,	Miner,	48	M	Alton,		Collar bone and five ribs fractured by fall of coal while undermining at face of room.
15	Samuel Miller,	American,	Driver,	30	S	Morrellville,		Leg broken by falling under trip of mine cars on haulage road.
	Paul Zolbie,	German,	Runner,	20	S	Eureka No. 37,		Arm broken. Caught between mine cars on haulage road.
16	Andy Single,	Slavonian,	Company man,	19	S	Henrietta No. 2,		Wrist dislocated by falling off coal trestle. Outside.
21	William Cekalla,	German,	Miner,	16	S	Priscilla,		Leg fractured by falling while on his way out of the mine.
26	Frank Fare,	French,	Miner,	47	S	Logan No. 4,		Back sprained by fall of slate while drawing pillar.
29	Samuel Wells,	English,	Miner,	30	S	Argyle No. 1,		Shoulder broken by fall of coal at face of room.
	Adam Kendor,	Hungarian,	Machine runner,	26	S	Eureka No. 40,		Back and head injured by fall of slate at face of room.
Feb. 2	Robert Strawthorn,	American,	Driver,	26	S	Valley,		Arm fractured by being kicked by a mule.
5	Frank Komeski,	Polish,	Miner,	24	S	Eureka No. 42,		Finger crushed. Caught between mine cars on haulage road.
9	Mason Saffronski,	Russian,	Miner,	21	S	Eureka No. 37,		Leg fractured. Caught under mine cars on haulage road.
11	John Plisko,	Russian,	Miner,	23	S	Logan No. 4,		Jaw broken by fall of slate at face of room.
20	John Donaldson,	Scotch,	Mine-foreman,	54	M	Dale,		Foot and hand burned by coming in contact with an electric wire.
27	John Bunk,	Polish,	Miner,	24	S	Eureka No. 40,		Leg fractured. Caught between mine wagons near the face of main airway.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
March 1	Patsy Grabbe,	Italian,	Driver,	23	M	Ray,	Indiana,	Knee fractured. Caught between mine cars on haulage road.
2	Thomas Taylor,	American,	Runner,	19	M	Eureka No. 36,	Somerset,	Ribs broken. Struck by mine cars on haulage road.
3	John Zelock,	Polish,	Miner,	38	M	Rolling Mill,		Leg broken by fall of bone coal at face of room.
10	Geo. Kamzik,	Slavonian,	Company man,	26	M	Rolling Mill,		Leg fractured. Caught under fall of slate falling off side of heading.
24	Tony Colinchio,	Italian,	Miner,	24	S	Stineman No. 2,		Collar bone fractured by fall of bone coal while drawing pillar.
30	Henry Gindelsburger,	American,	Miner,	30	M	Eureka No. 42,	Cambria,	Chest injured. Caught between mine car and floor at face of heading.
April 2	Joseph Abram,	Austrian,	Miner,	24	S	Valley,		Hip injured by fall of coal at face of room.
May 1	Anthony Rosemes,	Polish,	Miner,	32	M	Pennsylvania No. 3,		Leg fractured. Caught under mine cars on haulage road.
10	Joe Foster,	American,	Miner,	40	M	Valley,		Toe broken by piece of slate while taking out pillar.
	Simon Hutzel,	American,	Miner,	54	M	Argyle No. 1,		Hip injured by fall of coal in room.
11	Mike Sabatis,	Polish,	Loader,	40	S	Eureka No. 36,	Somerset,	Wrist bone broken by falling off a moving mine car on haulage road.
19	Geo. Nemmis,	Hungarian,	Miner,	35	M	Sunnyside,	Cambria,	Wrist broken by fall of coal while undermining at face of room.
20	James Moore,	American,	Driver,	20	S	Valley,	Cambria,	Arm fractured. Caught between mine cars on haulage road.
25	Frank Pease,	American,	Miner,	28	S	Pennsylvania No. 3,	Cambria,	Leg broken by fall of slate while cleaning fall on haulage road.
25	Barney Fullean,	American,	Miner,	26	S	Pennsylvania No. 3,	Cambria,	Arm bruised and two fingers broken while attempting to get on a moving trip of mine cars on haulage road.
26	Sadil Brunski,	Polish,	Scraper,	21	S	Eureka No. 36,	Somerset,	Leg broken by fall of draw slate at face of room.

May	26	Steve Racoski,	Polish,	Company man,	37	M	Eureka No. 36,	Somerset,	Leg broken by being struck by mine wagons on haulage road.
		Sam Ritscovits,	Slavonian,	Company man,	40	M	Eureka No. 36,	Somerset,	Two ribs fractured by being struck by moving mine wagons on haulage road.
	29	Peter Turon,	Slavonian,	Miner,	43	M	Dale,	Cambria,	Back injured by a piece of slate while working at face of room.
June	2	Mike Koban,	Slavonian,	Runner,	20	S	Franklin No. 1,	Cambria,	Leg fractured. Caught between bumpers of moving trip of mine cars on haulage road.
	4	Mike Olitsky,	Slavonian,	Driver,	28	M	Franklin No. 1,	Cambria,	Leg broken by falling under moving trip of empty mine wagons on haulage road.
		James Wilson,	American,	Miner,	27	M	Pennsylvania No. 3,	Cambria,	Hand and hip injured by being struck by mine car on haulage road.
	10	Joe Stiney,	Polish,	Miner,	24	M	Eureka No. 40,	Cambria,	Collar bone fractured by fall of coal in pillar work.
	15	Joseph Briand,	Italian,	Miner,	24	S	Eureka No. 34,	Somerset,	Leg fractured by fall of roof at face of room.
	17	Frank Ball,	English,	Miner,	19	S	Stineman No. 1,	Cambria,	Internally injured by fall of coal in room.
	18	Patrick Moriarity,	American,	Miner,	19	S	Pennsylvania No. 3,	Cambria,	Leg fractured by falling coal near face of room.
	21	Paul Jura,	Slavonian,	Miner,	25	S	Coleman Shaft,	Cambria,	Leg broken by fall of coal at face of room.
July	1	Ralph Sipolo,	Italian,	Company man,	40	M	Eureka No. 35,	Somerset,	Arm crushed by falling under moving trip of loaded mine cars. Outside.
	7	William Geleski,	Polish,	Company man,	28	S	Eureka No. 36,	Somerset,	Head injured by flying rock from a dynamite blast.
	9	Andrew Shorts,	Hungarian,	Miner,	30	M	Eureka No. 36,	Somerset,	Leg fractured. Caught between mine cars on haulage road.
	12	William Blasko,	Slavonian,	Driver,	22	M	Logan No. 4,	Cambria,	Hips injured. Squeezed between mine wagons on haulage road.
Aug.	4	William Davis,	Welsh,	Shot-man,	40	M	Rolling Mill,	Cambria,	Head and face injured by flying coal from a blast.
	7	Nestor Shaffron,	Slavonian,	Company man,	19	S	Franklin No. 1,	Cambria,	Ankle dislocated by being struck by mine car on haulage road.
	11	John Margo,	Slavonian,	Miner,	40	M	Henrietta No. 2,	Cambria,	Shoulder fractured and dislocated by fall of coal at face of room.
		Daniel Gardo,	Italian,	Timberman,	36	M	Eureka No. 32,	Somerset,	Arm crushed at wrist by a piece of slate falling from the roof in room.
	13	Andy Royko,	Slavonian,	Driver,	27	M	Henrietta No. 2,	Cambria,	Leg crushed under a moving trip of loaded mine cars on haulage road.
	14	Joe Posuoc,	Polish,	Miner,	28	S	Eureka No. 40,	Cambria,	Leg fractured. Caught between mine cars on haulage road.
	16	Lewis Ross,	Italian,	Miner,	25	S	Eureka No. 32,	Somerset,	Caught between timbers and mine cars while dropping cars out of his room.
	19	William Shazensky,	Polish,	Miner,	45	M	Rolling Mill,	Cambria,	Collar bone and two ribs fractured by fall of slate while drawing pillar.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Aug. 20	Joe Beham,	American,	Driver,	21	M	Sunnyside,	Cambria,	Foot crushed. Caught between bumpers of loaded wagons on haulage road.
21	Martin Rowser,	American,	Carpenter,	49	M	Eureka No. 42,	Cambria,	Foot injured while oiling machinery by coming in contact with a circular saw. Outside.
24	Joseph Cobnag,	French,	Miner,	31	M	Valley No. 3,	Cambria,	Back and rib broken by fall of slate in pillar workings.
	Mike Yuseirtch,	Slavonian,	Miner,	25	S	Conemaugh Slope,	Cambria,	Leg fractured by fall of bone coal in room.
27	Joseph Sodoski,	Polish,	Miner,	45	M	Eureka No. 36,	Somerset,	Back and hips injured by fall of slate in room.
Sept. 16	Charley Carlone,	Italian,	Miner,	30	S	Franklin No. 2,		Hand blown off by an explosion of a box of dynamite caps.
20	S. Marguretta,	Italian,	Miner,	26	S	Coleman Shaft,		Collar bone fractured by fall of coal in room.
24	John Bulko,	Slavonian,	Miner,	21	S	Franklin No. 2,		Leg broken. Caught under mine car in cut-through between headings.
25	Zelmo Levancek,	Slavonian,	Company man,	22	S	Franklin No. 2,	Cambria,	Jaw broken by being struck by mine car near face of main heading.
Oct. 2	Jacob Kehn,	German,	Miner,	50	M	Stineman No. 4,		Back injured by fall of slate while drawing pillar.
8	Alex Benna,	Magyar,	Miner,	26	M	Eureka No. 42,		Leg fractured by fall of coal at face of room.
14	Laslo Earday,	Hungarian,	Miner,	23	S	Eureka No. 37.		Contusion of the head. Caught between mine cars on haulage road.
	John Popp,	Hungarian,	Miner,	32	M	Eureka No. 35,	Somerset,	Two fingers broken. Caught under mine car near face of main heading.
30	Robert Guzik,	Hungarian,	Miner,	29	M	Eureka No. 36,	Somerset,	Collar bone dislocated by fall of coal in room.

Oct.	31	Domnick Mundy,	Italian,	Timberman,	35	S	Franklin No. 2,		Burned by explosion of coal dust.
		Metro Alexa,	Italian,	Timberman,	23	S	Franklin No. 2,		
Nov.	3	Sent Scallora,	Italian,	Miner,	53	M	Morrellville,		Scalp wound and rib fractured by fall of slate in room.
	8	John Ritzdtia,	Polish,	Miner,	32	M	Stineman No. 3,		Collar bone and rib fractured by fall of coal at face of heading.
	12	George Repine,	American,	Miner,	26	M	Eureka No. 42,		Collar bone fractured by fall of coal in room.
	18	Martin Busko,	Polish,	Miner,	26	S	Eureka No. 37,		Leg broken by fall of coal in room.
		Joe Brusofski,	Polish,	Miner,	36	M	Eureka No. 42,	Cambria,	Collar bone fractured by fall of coal in room.
	20	John McCartney,	American,	Miner,	25	S	Yellow Run Shaft,		Shin bone fractured. Caught between mine cars on main slope.
	29	Joseph Koesla,	Slavonian,	Miner,	29	S	Franklin No. 1,		Part of hand blown off by a blast.
Dec.	5	Mike Bisko,	Slavonian,	Trackman,	17	S	Eureka No. 40,		Back injured. Squeezed between electric motor and door. Outside.
	6	William Bearch,	German,	Miner,	33	M	Valley,		Leg broken by fall of coal in pillar workings.
	10	Charles Lacina,	Italian,	Miner,	40	M	Yellow Run Shaft,		Arm fractured by fall of slate at face of main slope.
	13	John Strovigna,	Slavonian,	Driver,	32	M	Franklin No. 2,		Leg fractured. Caught under mine cars on incline plane.
		Emorey Swets,	Hungarian,	Miner,	19	S	Eureka No. 35,	Somerset,	Spine injured by fall of coal at face of room.
	23	Joe Bosko,	Italian,	Miner,	21	M	Eureka No. 32,	Somerset,	Collar bone fractured by fall of coal while drawing pillar.
	28	Andy Kudrick,	Slavonian,	Miner,	21	S	Yellow Run Shaft,	Cambria,	Leg fractured by fall of coal in room.
	30	Steve Croyer,	Slavonian,	Miner,	41	M	Eureka No. 36,	Somerset,	Internally injured. Caught between mine cars on haulage road.
		William Frederick,	German,	Miner,	48	M	Eureka No. 37,	Cambria,	Collar bone fractured and internally injured by fall of coal in room.

FATAL ACCIDENTS

On the night of April 9 an explosion occurred in Eureka No. 37, Upper, mine, of the Berwind-White Coal Mining Company, by which seven men were killed. They were engaged at the time in blasting rock to make room for an overcast near the entrance of fourth right heading. It is supposed that they overcharged their shots and were killed by the flame of the blast. It is probable, however, that coal dust played a prominent part in the explosion, as some of the victims were found quite a distance from the point where the blast had been fired. While it is true that this part of the mine was practically free from dust, the sides and roof were dry, and the small quantity of dust present was a prominent factor in extending the flame and widening the range of the explosion.

On the afternoon of October 31 an explosion of coal dust occurred in a section of Franklin No. 2 mine, of the Cambria Steel Company, by which thirteen persons lost their lives and one was severely burned. The explosion occurred at the face of No. 11 parallel off fourth left main, where two miners were at work. The coal at this point was thin, and the heading only ten feet in width. In order to make progress they were allowed to drill four holes into the coal, varying in depth from five to six feet, one at each side or rib, and two holes about three feet apart toward the center of the heading. These holes were charged with dynamite and fired by different length of fuse (or time fuse) in order to allow the two holes near the center of the heading to go off a fraction of a second in advance of the side holes.

It was proved by witnesses that the men working in this eleventh parallel did not commence work until about 2.30 P. M. on the day of the explosion. They remained outside until about 2 o'clock, and in order to prepare a bottom shot for the men who were to follow them on the night turn they, undoubtedly, charged the holes at the face of this working place with a sufficient amount of dynamite to be doubly certain of doing the work.

CONDITION OF MINES

BERWIND-WHITE COAL MINING COMPANY

Eureka Nos. 32, 33, 34, 35, 35 Upper, 36, 37, 37 Upper, 40 and 42.—Conditions not satisfactory at the face of the major portion of the active workings in each mine, the air currents being too weak for efficient ventilation, due to excessive air splitting. Drainage and general conditions reasonably good.

Eureka No. 41.—Idle the greater part of the year.

Eureka No. 38.—Idle the entire year.

CAMBRIA STEEL COMPANY

Rolling Mill.—Ventilation good. Drainage defective on haulage roads of No. 7 east off main south. No shelter holes provided on main dilly road.

Franklin Nos. 1 and 2.—Ventilation not up to the requirements at the face of active workings of several sections, in each mine. Drainage in No. 2 mine defective on some of the roadways.

Conemaugh Slope.—Ventilation weak and drainage defective in all the active workings, except the workings off lower end of main slope.

LOGAN COAL COMPANY

Logan No. 1.—Ventilation weak and drainage defective.

Logan No. 2.—Ventilation very unsatisfactory throughout the entire workings. Drainage fair.

Logan No. 4.—Ventilation and drainage reasonably good.

Logan No. 6.—Idle.

Logan No. 7.—In fair condition.

PENNSYLVANIA COAL AND COKE COMPANY

Pennsylvania No. 3.—Ventilation good except in some of the workings off No. 13 Plane Section. Drainage good.

Pennsylvania No. 5.—Idle.

Pennsylvania Nos. 6 and 8.—Ventilation and drainage good.

Pennsylvania No. 15.—Ventilation very unsatisfactory. No effort is made to guide and direct the air currents to the face of the workings. Drainage defective on No. 4 left heading.

STINEMAN COAL AND COKE COMPANY

Stineman Nos. 2 and 4.—The ventilation, drainage and other conditions reasonably good.

ARGYLE COAL COMPANY

Argyle No. 1.—Ventilation and drainage good.

Argyle No. 2.—In fair condition. The ventilation needed improvement in different places.

HENRIETTA COAL MINING COMPANY

Henrietta No. 1.—Ventilation and drainage fair.

Henrietta No. 2.—Ventilation not satisfactory in different sections.

STINEMAN COAL MINING COMPANY

Stineman No. 1.—Ventilation not up to the requirements, due to inadequate ventilating power and contracted airways. The local management is doing all in its power to bring the mine up to the requirements of the law.

SOUTH FORK COAL MINING COMPANY

South Fork No. 1.—In fair condition. The ventilation and drainage are much improved. Considerable effort is now being put forth to bring the mine up to a legal standard.

South Fork No. 2.—Ventilation poor, due to inadequate ventilating power. A new ventilating fan will be installed as soon as the weather conditions permit.

VALLEY COAL AND STONE COMPANY

Valley.—Ventilation, drainage and general conditions reasonably good.

J. BLAIR KENNERLY

Valley No. 2.—Ventilation fair. Drainage defective on major portion of haulage roads.

Valley No. 3.—Ventilation fair. Drainage good.

ALTON COAL COMPANY

Alton.—Ventilation fair except at face of workings off upper level. Drainage defective on haulage road of A heading.

SHADE COAL MINING COMPANY

Hagevo.—In fair condition as to ventilation and drainage.

SUNNYSIDE COAL COMPANY

Sunnyside.—In good condition.

LOYALHANNA COAL AND COKE COMPANY

Loyalhanna No. 3.—Ventilation fairly good. Drainage defective

CITIZENS COAL COMPANY

Dale, Green Hill and Gautier.—Ventilation, drainage and general conditions good.

MORRELLVILLE COAL MINING COMPANY

Morrellville.—In good condition.

PRISCILLA COAL MINING COMPANY

Priscilla.—Ventilation and drainage reasonably good.

NINEVAH COAL AND COKE COMPANY

Seward.—Ventilation, drainage and general conditions are up to the requirements of the law.

RAY COAL COMPANY

Ray.—In fair condition.

BEAVER RUN COAL COMPANY

Beaver Run Nos. 1 and 2.—Ventilation poor in the workings to left of main slope. Drainage defective throughout the entire mine.

CAMBRIA COAL MINING COMPANY

Lloydell.—In fair sanitary condition.

SUPPES COAL COMPANY

Suppes.—In reasonably good condition.

YELLOW RUN COAL MINING COMPANY

Yellow Run Shaft.—Ventilation good. Drainage very poor on all haulage roads to right and left of main slope.

BLAIRSVILLE COKE COMPANY

Strangford.—In fairly good condition.

SAMUEL STYER

Radnor.—Ventilation and general conditions very poor, due to the neglect of the mine foreman to keep the ventilating furnace in operation and to provide shelter holes on haulage road.

MARYLAND COAL COMPANY

Coleman Shaft.—Ventilation and drainage good.

INGLESIDE COAL COMPANY

Ingleside.—Ventilation, drainage and general conditions fair.

A. J. HAWS AND SONS, LIMITED

Haws Shaft and Coopersdale.—Ventilation and drainage good in each mine.

FERNDALE COAL COMPANY

Ferndale.—Ventilation good. Drainage defective on parts of main traveling road.

OLIVER STINEMAN

Stineman Nos. 3 and 3½.—Ventilation and drainage good.

HIGHLAND COAL COMPANY

Highland.—In fair condition.

KELSO SMOKELESS COAL COMPANY

Kelso.—In good condition.

HARVEY STINEMAN

Stineman Nos. 5 and 6. In good sanitary condition.

BOLIVAR COAL AND COKE COMPANY

Lockport.—Not inspected. Idle nearly the entire year.

JOHNSTOWN COAL COMPANY

Cramer.—Ventilation and drainage poor.

IMPROVEMENTS

CAMBRIA STEEL COMPANY

Rolling Mill Mine.—On March 8 locked safety lamps were introduced into this mine, to be used exclusively. A large brick and concrete fireproof lamp-house was constructed at the drift mouth, with rack space to accommodate 1,024 safety lamps.

Only permissible explosives have been allowed in this mine during the year.

Franklin Mine No. 1.—A new main airway has been driven through faulty and low coal a distance of 1,130 feet, to provide proper ventilation for the right hand portion of the workings.

Permissible explosives were introduced October 14 to replace black powder. Since that time they have been substituted for dynamite also, so that at the present time nothing but permissible explosives are used.

Two reinforced concrete overcasts were constructed and have proved very satisfactory.

Franklin Mine No. 2.—On September 28 permissible explosives were introduced to take the place of black powder. Later, instructions were issued to use nothing but permissible explosives throughout the mine.

Two concrete brick overcasts were constructed for extending the ventilation.

Extensions were made to the electric haulage system to bring the motor haul as close as possible to the working places.

Conemaugh Slope.—On November 3 permissible explosives were introduced to take the place of black powder and dynamite.

PENNSYLVANIA COAL AND COKE COMPANY

Pennsylvania No. 3.—A bore hole was put down at back end of No. 26 Section and connected with a system of pipe lines for the purpose of saturating the dust in the workings; one was also put down in No. 13 Plane Section, where a system of pipe lines is provided, branching into each pair of headings and provided with spraying connections.

A new airway is being driven from No. 19 to No. 26 heading and is about three-fourths completed.

Shelter holes have been made on all haulage roads, and traveling roads have been cleaned of obstructions and made passable. Safety lamps installed in all pillar workings.

ARGYLE COAL COMPANY

Argyle No. 2.—A new twelve-foot Brazil fan installed.

SOUTH FORK COAL MINING COMPANY

South Fork No. 1.—Air course from fan to face of active workings enlarged to seventy-five feet area. All airways enlarged and sixty-three permanent stoppings (made of mine rock laid in Portland ce-

ment) built between inlet and main return. All traveling roads cleaned of obstruction and shelter holes made on haulage roads. Safety lamps put in all pillar workings.

STINEMAN COAL MINING COMPANY

Stineman No. 1.—Main inlet airway enlarged from fan into the active workings, and eighty permanent stoppings built between main inlet airway and return airway, and two concrete overcasts built.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Municipal Building, Johnstown, April 6, 7, 8 and 9.

The Board of Examiners was composed of the following persons: Daniel R. Blower, Inspector; Peter Connor, Superintendent, and John Donaldson, Mine Foreman.

There were fifty-one applicants examined, thirty-one for certificates as Mine Foremen and twenty for certificates as Fire Bosses. The following persons having passed a satisfactory examination were granted certificates as Mine Foremen:

First Grade

Matthew Mulvihill, South Fork, and John P. Slevin, Coral.

Second Grade

William L. Dunmire, South Fork; George Simpson, Windber; Lewis Swain, Hooversville, and Clyde MacDonald, Windber.

SEVENTH DISTRICT

ALLEGHENY, WASHINGTON AND BEAVER COUNTIES

Crafton, Pa., February 28, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my first report as Inspector of Mines of the Seventh Bituminous District, for the year ending December 31, 1909. I assumed charge of this district July 1, 1909.

The report contains the usual tables and statistics, together with a brief report of the conditions of the mines and other information.

Respectfully submitted,

ARTHUR NEALE,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	54
Number of mines in operation,	47
Number of tons of coal shipped to market,	6,943,327
Number of tons of coal used at mines for steam and heat,	179,274
Number of tons sold to local trade and used by employes,	30,276
Number of tons used in the manufacture of coke,	———
Number of tons of coal produced,	7,152,877
Number of tons of coke produced,	———
Number of coke ovens,	———
Number of coke ovens in operation,	———
Number of tons of coal produced by pick mining,	1,504,219
Number of tons produced by compressed air machines,	1,218,798
Number of tons produced by electrical machines,	4,429,860
Number of persons employed inside of mines,	9,116
Number of persons employed outside including coke workers,	992
Number of persons employed at manufacture of coke,	———
Number of fatal accidents inside of mines,	16
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	50
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	447,055
Number of persons employed per fatal accident inside,	570
Number of persons employed per fatal accident outside,	992
Number of persons employed per non-fatal accident inside,	182
Number of persons employed per non-fatal accident outside,	992
Number of wives made widows,	9
Number of children made orphans,	20
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	72
Number of electric motors used outside,	———
Number of fans in use,	53
Number of furnaces in use,	2
Number of gaseous mines in operation,	28
Number of non-gaseous mines in operation,	19
Number of new mines opened,	———
Number of old mines abandoned,	7

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburg Coal Company,	3,989,278
National Mining Company,	814,631
Pittsburg and Eastern Coal Company,	459,156
Carnegie Coal Company,	346,747
Fayette Coal Company,	313,065
Pittsburg-Buffalo Coal Company,	183,612
Panhandle Mining Company,	148,384
Verner Coal and Coke Company,	146,440
Bulger Block Coal Company,	93,827
Hugh McHugh,	82,000
Pryor Coal Company,	68,358
Hormel Coal Company,	67,068
Steen Coal Company,	66,131
J. H. Sanford Coal Company,	64,597
McClane Coal Company,	57,061
Pittsburg and Southwestern Coal Company,	43,500
Penobscot Coal Company,	42,923
Meadow Lands Coal Company,	37,534
Kirkbride Coal Company,	37,132
Walter J. Flanagan,	32,166
Island Run Coal Company,	30,198
McDonald Coal Company,	29,069
Total,	7,152,877

Production by Counties

Allegheny,	4,729,170
Washington,	2,393,509
Beaver,	30,198
Total,	7,152,877

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburg Coal Co.,	5	1	6	24	1	25	797,855	166,219	5,036	510	5,546	1,007	510	209	510
National Mining Co.,	1		1	2		2	814,631	407,315	869	101	970	869		434	
Pittsburg and Eastern Coal Co.,				5		5		91,831	582	75	657			116	
Carnegie Coal Co.,	4		4	1		1	86,687	346,747	476	52	528	119		476	
Fayette Coal Co.,	3		3				104,355		367	32	399	122			
Pittsburg-Buffalo Co.,				2		2		91,806	253	31	284			126	
Panhandle Mining Co.,				3		3		49,461	137	17	154			45	
Verner Coal and Coke Co.,				1		1		146,440	240	27	267			240	
Bulger Block Coal Co.,				2		2		46,913	155	17	172			77	
Pryor Coal Co.,				2		2		34,179	99	13	112			49	
Hormel Coal Co.,				5		5		13,414	95	13	108			19	
Steen Coal Co.,	1		1				66,131		74	9	83	74			
J. H. Sanford Coal Co.,	1		1	2		2	64,597	32,298	88	12	100	88		44	
McClane Coal Co.,	1		1	1		1	57,061	57,061	72	8	80	72		72	
Miscellaneous Companies,									573	75	648				
Totals and averages for district,	16	1	17	50	1	51	447,055	143,057	9,116	992	10,108	570	992	182	992

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	1	1	----	----	1	----	3	2	1	----	----	----	9	56.25
Mine cars,	1	----	----	----	----	----	----	1	----	----	----	1	3	18.75
Electricity,	----	----	----	----	----	----	----	1	----	1	1	----	3	18.75
Miscellaneous,	1	----	----	----	----	----	----	----	----	----	----	----	1	6.25
Totals,	3	1	----	----	1	----	3	4	1	1	1	1	16	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	1	----	----	----	1	100.00
Totals,	----	----	----	----	----	----	----	----	1	----	----	----	1	100.00
Grand totals inside and outside,	3	1	----	----	1	----	3	4	2	1	1	1	17	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	1	----	1	1	----	----	----	1	1	----	----	5	10.00
Falls of slate,	----	1	----	2	2	1	1	1	1	4	2	2	17	34.00
Falls of roof,	1	----	1	----	2	1	1	2	----	----	----	1	9	18.00
Mine cars,	----	----	2	----	1	----	----	2	3	2	4	1	15	30.00
Explosions of gas and dust,	----	----	1	----	----	----	----	----	----	----	----	----	1	2.00
Mules,	----	----	----	----	----	1	----	----	----	----	1	----	2	4.00
Machinery,	----	----	----	----	----	----	----	1	----	----	----	----	1	2.00
Totals,	1	2	4	3	6	3	2	6	5	7	7	4	50	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	1	----	----	----	----	1	100.00
Totals,	----	----	----	----	----	----	----	1	----	----	----	----	1	100.00
Grand totals inside and outside,	1	2	4	3	6	3	2	7	5	7	7	4	51	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	----	----	----	----	----	2	----	----	1	----	6
Machine runners,	----	----	----	----	----	----	----	1	1	1	----	----	3
Machine loaders,	1	----	----	----	1	----	3	----	----	----	----	----	5
Drivers and runners,	----	----	----	----	----	----	----	1	----	----	----	1	2
Totals,	3	1	----	----	1	----	3	4	1	1	1	1	16
Outside													
Laborer,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	----	----	----	----	----	----	----	----	1	----	----	----	1
Grand totals inside and outside,	3	1	----	----	1	----	3	4	2	1	1	1	17

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	----	----	----	----	----	----	----	----	1	----	----	----	1
Fire bosses,	----	----	----	----	----	----	----	----	----	1	----	----	1
Miners,	1	1	----	2	2	----	1	3	1	3	----	2	16
Machine runners,	----	----	----	----	1	----	----	----	----	----	----	----	1
Machine loaders,	----	1	3	1	3	1	1	1	2	3	3	1	20
Machine scrapers,	----	----	----	----	----	1	----	----	----	----	----	----	1
Drivers and runners,	----	----	1	----	----	----	----	2	----	----	2	----	5
Doorboys and helpers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Motormen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Snappers,	----	----	----	----	----	----	----	----	----	----	1	1	2
Hookers-on,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	1	2	4	3	6	3	2	6	5	7	7	4	50
Outside													
Tipple hands,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	----	----	----	----	----	----	----	1	----	----	----	----	1
Grand totals inside and outside,	1	2	4	3	6	3	2	7	5	7	7	4	51

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		1						1	1				3
English,												1	1
Scotch,								1	1				2
Polish,					1		1	1					3
Slavonian,											1		1
Lithuanian,							1						1
Austrian,	1						1	1					3
Russian,	1									1			2
Belgian,	1												1
Totals,	3	1			1		3	4	2	1	1	1	17

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,			1					2	1			1	5
English,										2	1	1	4
Welsh,										1			1
Scotch,						1							1
Irish,				1									1
German,			1		1					1			3
Polish,					1	1			1	2			5
Italian,				1			1	3	2		1		8
Slavonian,					3			1		1	2	1	8
Lithuanian,								1					1
Austrian,	1	1											2
Russian,			1						1			1	3
French,		1					1				1		3
Belgian,			1	1	1	1							4
Granish,											2		2
Totals,	1	2	4	3	6	3	2	7	5	7	7	4	51

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pittsburg Coal Co.																
Bridgeville,	Drift,	Gaseous,	Fan,	16	5	5	97	1.2	Vulcan,	Electricity,		6	107,400	51,270	118,000	260
Brier Hill,	Drift,	Gaseous,	Fan,	20	8	6	45	1.0	Vulcan,	Steam,		2	28,000	16,600	40,000	
				12.5	6		150	2.8	Clifford, Capell.	Electricity,		6	142,000	113,320	166,500	330
Creedmoor,	Shaft,	Gaseous,	Fan,	16	8	3.6	100	1.4	Wilson,	Steam,		5	104,500	45,200	106,000	262
Essen No. 2,	Slope,	Gaseous,	Fan,	20	4.75	5.7	84	1.5	Robinson,	Steam,		4	82,000	46,900	86,900	275
Essen No. 3,	Slope,	Gaseous,	Fan,	12	6.6	5.0			Capell,	Steam,						2
Grant,	Drift,	Non-gas.,	Fan,	5.0	2.5	.2	330	.4	Stine,	Electricity,		1	28,400	14,040	35,250	
				7.0	2.6	.2	290	.3	Stine,	Electricity,		5	72,000	36,850	73,500	292
Idlewood,	Drift,	Gaseous,	Fan,	18.0	6.25	5.1	65	1.8	Wilson,	Steam,		3	62,800	21,320	66,000	138
Jumbo,	Drift,	Gaseous,	Fan,	20.0	6.5	6.0	93	2.3	Guibal,	Steam,		5	140,000	95,700	144,900	362
Laurel Hill No. 2,	Shaft,	Gaseous,	Fan,	20.17	6.10	6.10			Vulcan,	Steam,						3
Laurel Hill No. 5,	Shaft,	Gaseous,	Fan,	16.0	4.5	6.1	104	1.6	Vulcan,	Steam,		4	103,680	43,900	108,000	286
Mansfield No. 2,	Drift,	Gaseous,	Fan,	24.83	8.0	7.0	65	2.1	Guibal,	Electricity,		7	141,000	73,600	163,350	556
Margerum,	Drift,	Non-gas.,	Fan,	6.0	2.6	2	350	.4	Stine,	Electricity,		2	34,000	12,500	35,550	
				6.0	2.6	2	400	.6	Stine,	Electricity,		3	44,000	23,750	46,800	261
Moon Run No. 1,	Drift,	Non-gas.,	Fan,	6.0			420	.3	Clark,	Electricity,						
				7.0	2.6	2	310	.4	Stine,	Electricity,		7	140,000	53,500	195,220	233
				18.0	6.0	2.6	74	1	Brazil,	Electricity,						
Moon Run No. 2,	Drift,	Non-gas.,	Fan,	7.0			525	.9	Stine,	Electricity,		3	118,000	37,130	125,000	217
				8.0	8.0		140	.4	Capell,	Steam,						
Moon Run No. 3,	Drift,	Non-gas.,	Fan,	7.0	2.1	2.8	496	.7	Stine,	Electricity,		4	80,800	34,530	83,160	182

O. I. C.,	Drift,	Gaseous,	Fan,	12.0	5.0	3.0	130	1.2	Robinson,	Electricity,		6	87,000	56,800	99,000	293
Partridge,	Drift,	Gaseous,	4 Fans,	6.0	2.6	2.0	340	.4	Clark,	Electricity,		2	184,000	95,275	186,570	521
				6.0	2.6	2.0	450	.4	Stine,	Electricity,		3				
				8.0	4.0	2.0	90	.4	Buffalo,	Electricity,		2				
				18.0	6.0	5.0	65	.6	Brazil,	Steam,		1				
Ridgway,	Slope,	Gaseous,	Fan,	18.7	6.7	5.6	80	1.8	Wilson,	Steam,		4	93,000	45,650	152,000	268
Shaw,	Drift,	Non-gas.,	Fan,	20.0	6.2	5.8	90	1.4	Brazil,	Steam,			66,480	51,180	105,562	334
National Mining Co.																
National No. 1,	Slope,	Gaseous,	Fan,	16	8	6	130	2.5	Capell,	Steam,		6	155,400	81,780	161,400	413
National No. 2,	Slope,	Gaseous,	Fan,	16	7	5	135	2.3	Capell,	Steam,		10	158,150	85,150	168,000	456
Pittsburg and Eastern Coal Co.																
Pittsburg and Eastern No. 1,	Shaft,	Gaseous,	Fan,	20.0	9.0	5.0	85	1.7	Pollock,	Steam,		6	87,000	61,740	89,000	192
Pittsburg and Eastern No. 2,	Shaft,	Gaseous,	Fan,	20.0	9.0	5.0	90	1.6				5	92,800	60,300	112,000	187
Pittsburg and Eastern No. 3,	Shaft,	Gaseous,	Fan,	20.0	9.0	5.0	98	1.6				6	105,000	47,810	107,800	196
Carnegie Coal Co.																
Carnegie,	Drift,	Gaseous,	Fan,	9.0	7.0	3.6	180	1.6	Capell,	Steam,		3	63,720	19,650	67,000	96
Oakdale,	Drift,	Non-gas.,	2 Fans,	12.0	3.6	3.3	96	.5	Brazil,	Electricity,		6	100,000	73,800	110,800	183
				12.0	3.6	3.3	122	.4								
Primrose,	Drift,	Gaseous,	Fan,	13.5	7.0	3.5	165	2.3	Capell,	Steam,		5	57,000	45,100	88,500	198
Fayette Coal Co.																
Chalfant,	Drift,	Gaseous,	Fan,	12	5.2	4.6	220	1.9	Capell,	Steam,		6	104,000	57,500	119,700	367
Pittsburg-Buffalo Co.																
Francis,	Slope,	Gaseous,	Fan,	14	5.0	6.0	100	2.0	Pollock,	Steam,		4	110,000	70,450	114,000	246
Panhandle Mining Co.																
Blyth,	Slope,	Gaseous,	Fan,	16	4.4	4.2	85.	1.0	Kinney,	Steam,		3	58,840	28,740	59,800	137
Verner Coal and Coke Co.																
Verner,	Slope,	Gaseous,	Fan,	12	9.0	6.0	250	1.9	Capell,	Steam,		4	108,000	50,840	119,050	240
Bulger Block Coal Co.																
Bulger,	Shaft,	Gaseous,	Fan,	10	5.3	4.4	210	1	Capell,	Steam,		4	62,000	32,230	66,960	140
Hugh McHugh																
Cherry,	Drift,	Non-gas.,	Furnace,								98	2	16,400	13,860	17,300	79
Pryor Coal Co.																
Avella No. 1,	Drift,	Non-gas.,	Fan,	7	2.2	2	250	1.2	Stine,	Electricity,		6	70,200	31,430	73,000	99

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Hormel Coal Co.																
Federal No. 2,	Drift,	Non-gas.,	Fan,	7	2.2	2	250	1.0	Stine,	Electricity,		3	18,000	14,000	20,000	80
Beechmont,	Drift,	Non-gas.,	Furnace,										*			7
Oak Ridge,	Drift,	Non-gas.,	Fan,	12	4	3.3	80	.6	Brazil,	Steam,			*			8
Steen Coal Co.																
Willa No. 2,	Drift,	Gaseous,	Fan,	8	4	3.9	190	1.5	Capell,	Electricity,		2	24,000	22,500	25,200	74
J. H. Sanford Coal Co.																
Armide,	Drift,	Non-gas.,	Fan,	8			250	.8	Stine,	Electricity,		3	54,000	39,000	60,900	88
McClane Coal Co.																
Katie,	Slope,	Non-gas.,	Fan,	12	4.6	3.4	90	1	Brazil,	Steam,			19,300	16,200	26,700	72
Pittsburg and Southwestern Coal Co.																
Donohoe,	Slope,	Gaseous,	Fan,	16	6	4	60	1	Pollock,	Steam,		2	54,960	14,800	56,000	71
Penobscot Coal Co.																
Penobscot,	Drift,	Non-gas.,	Fan,	12	4	3.6	50	.5	Cole,	Steam,		4	39,640	15,440	41,000	48
Meadow Lands Coal Co.																
Meadow Lands No. 3,†	Slope,	Gaseous,	Fan,	20	7	5.5	65	.9	Brazil,	Steam,		5	77,000	32,900	80,000	160

*Not inspected.
†Formerly Pryor No. 1, of Pittsburg and Washington Coal Co.

Kirkbride Coal Co. Kirkbride,	Drift,	Non-gas.,	Furnace,								36	1	16,000	13,000	16,500	36
Walter J. Flanagan Cedar Grove,	Slope,	Non-gas.,	Fan,	12.6	5	5.6	50	.5	Clifford,	Steam,		2	48,900	40,500	51,500	65
Island Run Coal Co. Dawson,	Drift,	Non-gas.,	Fan,	5	4	1.8	230	.6	Capell,	Electricity,		1	12,000	3,500	13,000	31
McDonald Coal Co. Willow Grove,	Drift,	Non-gas.,	Fan,	12	4.2	4.2	70	.6	Brazil,	Steam,		1	40,000	22,000	41,400	60

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Pittsburg Coal Co.,	Brier Hill,	Drift,	Gaseous,	15	Electricity and Compressed Air.	Pittsburg,	58	72	48	93,506
	Bridgeville,	Drift,	Gaseous,	10	Electricity,		64	67	61	138,556
	Creedmoor,	Shaft,	Gaseous,	22	Electricity and Compressed Air.		60	62	58	209,891
	Essen No. 2,	Slope,	Gaseous,	12	Electricity,		64			180,435
	Grant,	Drift,	Non-gas.,	8	Electricity,		65	72	58	168,818
	Idlewood,	Drift,	Gaseous,	5	Electricity,		60	65	58	101,559
	Jumbo,	Drift,	Gaseous,	14	Electricity and Compressed Air.		58	72	48	218,261
	Laurel Hill No. 5,	Shaft,	Gaseous,	14	Electricity and Compressed Air.		64			97,993
	Mansfield No. 2,	Drift,	Gaseous,	15	Electricity,		65	68	62	389,210
	Moon Run Nos. 1, 2 and 3,	Drift,	Non-gas.,	21	Electricity and Compressed Air.		60	74	50	550,920
	Margerum,	Drift,	Non-gas.	9	Electricity,		60	64	56	190,499
	O. I. C.,	Drift,	Gaseous,	13	Electricity,		64	80	54	127,643
	Partridge,	Drift,	Gaseous,	34	Electricity and Compressed Air.		62	64	60	380,911
	Ridgway,	Slope,	Gaseous,	24	Compressed Air,		48	72	42	125,571
	Shaw,	Drift,	Non-gas.,	17	Electricity and Compressed Air,		60	62	54	201,765
Totals,				233						3,175,538

National Mining Co.,	National No. 1,	Slope,	Gaseous,	22	Electricity,	Pittsburg,	63	66	60	701,143
	National No. 2,	Slope,	Gaseous,	20			63	66	60	
Totals,				42						701,143
Pittsburg and Eastern Coal Co.,	Pittsburg and Eastern No. 1.	Shaft,	Gaseous,	22	Electricity and Compressed Air.	Pittsburg,	54	60	48	75,789
	Pittsburg and Eastern No. 2.	Shaft,	Gaseous,	23	Electricity and Compressed Air.		54	60	48	161,478
	Pittsburg and Eastern No. 3.	Shaft,	Gaseous,	21	Electricity and Compressed Air.		54	60	48	171,839
Totals,				66						409,106
Carnegie Coal Co.,	Carnegie,	Drift,	Gaseous,	7	Electricity,	Pittsburg,	50	57	46	61,309
	Oakdale,	Drift,	Non-gas.,	9			60	60	57	77,907
	Primrose,	Drift,	Gaseous,	14			60	66	54	132,197
Totals,				30						271,473
Fayette Coal Co.,	Chalfant,	Drift,	Gaseous,	23	Electricity and Compressed Air.	Pittsburg,	55	60	48	156,865
Pittsburg-Buffalo Co.,	Francis,	Slope,	Gaseous,	28	Electricity and Compressed Air.	Pittsburg,	66	72	70	115,469
Panhandle Mining Co.,	Blyth,	Slope,	Gaseous,	6	Electricity,	Pittsburg,	64			109,734
Verner Coal and Coke Co.,	Verner,	Slope,	Gaseous,	18	Electricity and Compressed Air.	Pittsburg,	60	72	48	96,397
Bulger Block Coal Co.,	Bulger,	Shaft,	Gaseous,	13	Electricity,	Pittsburg,	66	70	60	90,345
Hugh McHugh,	Cherry,	Drift,	Non-gas.,	3	Electricity,	Pittsburg,	62	68	58	62,000
Pryor Coal Co.,	Avella No. 1,	Drift,	Non-gas.,	3	Electricity,	Pittsburg,	58	66		62,467
Hormel Coal Co.,	Federal No. 2,	Drift,	Non-gas.,	3	Electricity,	Pittsburg,	60			18,990
Steen Coal Co.,	Willa No. 2,	Drift,	Gaseous,	3	Electricity,	Pittsburg,	59	66	52	37,505
J. H. Sanford Coal Co.,	Armide,	Drift,	Non-gas.,	9	Electricity,	Pittsburg,	60	72	58	64,217
McClane Coal Co.,	Katie,	Slope,	Non-gas.,	3	Electricity,	Pittsburg,	60	70	48	33,641
Pittsburg and Southwestern Coal Co.,	Donohoe,	Slope,	Gaseous,	16	Compressed Air,	Pittsburg,	62	70	58	43,500
Penobscot Coal Co.,	Penobscot,	Drift,	Non-gas.,	4	Electricity,	Pittsburg,	56			42,083
Meadow Lands Coal Co.,	Meadow Lands No. 3,	Slope,	Gaseous,	10	Electricity and Compressed Air.	Pittsburg,	56	58	54	35,734
Kirkbride Coal Co.,	Kirkbride,	Drift,	Non-gas.,	3	Compressed Air,	Pittsburg,	60			36,832
Walter J. Flanagan,	Cedar Grove,	Slope,	Non-gas.,	4	Electricity,	Pittsburg,	60	65	48	32,166
Island Run Coal Co.,	Dawson,	Drift,	Non-gas.,	2	Electricity,	Lower Freeport,	42			30,198
McDonald Coal Co.,	Willow Grove,	Drift,	Non-gas.,	1	Electricity,	Pittsburg,	60			23,255
Grand totals,				523						5,648,658

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburg Coal Co.						
Brier Hill,	Washington,			F. M. Fritchman,	McDonald,	P. C. C. and St. L.
Bridgeville,	Allegheny,			S. P. McCaffrey,	Bridgeville,	P. C. C. and St. L., Chartiers Branch
Creedmoor,	Washington,			W. J. McGregor,	Cecil,	P. C. C. and St. L., B. and M. Branch
Champion,*	Allegheny,			L. C. Sarver,	McDonald,	P. C. C. and St. L.
Dickson,*	Allegheny,			Jules Waterloo,	Imperial,	Montour
Essen Nos. 2 and 3,	Allegheny,			J. M. Sloan,	Burdine,	P. C. and Y.
Grant,	Allegheny,			Harry Cattley,	Loupnex,	P. C. C. and St. L.
Idlewood,	Allegheny,			J. J. Boyle,	Loupnex,	P. C. C. and St. L.
Jumbo,	Washington,			F. M. Fritchman,	McDonald,	P. C. C. and St. L.
Laurel Hill No. 2,	Washington,			W. J. McGregor,	Cecil,	P. C. C. and St. L., B. and M. Branch
Laurel Hill No. 5,	Allegheny,	George W. Schlueder-berg.	Pittsburg,	William Phillips,	Gradatim,	P. C. C. and St. L., B. and M. Branch
Mansfield No. 2,	Allegheny,			J. J. Boyle,	Loupnex,	P. C. C. and St. L., Chartiers Branch
Moon Run Nos. 1, 2 and 3,	Allegheny,			Samuel Pritchard,	Moon Run,	Pittsburg and Moon Run
Margerum,	Allegheny,			Jules Waterloo,	Imperial,	Montour
O. I. C.,	Allegheny,			J. M. Sloan,	Burdine,	P. C. and Y.
Partridge,	Allegheny,			Jules Waterloo,	Imperial,	Montour
Ridgway,	Washington,			William Phillips,	Gradatim,	P. C. C. and St. L., B. and M. Branch
Shaw,	Washington,			D. C. Clapperton,	Midway,	P. C. C. and St. L.
National Mining Co.						
National Nos. 1 and 2,	Allegheny,			F. A. McDonald,	Morgan,	P. C. C. and St. L.
Pittsburg and Eastern Coal Co.						
Pittsburg and Eastern No. 1, Pittsburg and Eastern No. 2, Pittsburg and Eastern No. 3,	Washington,	Luke Hornickel,	Cleveland, Ohio,	Robert Young,	Cherry Valley,	P. C. C. and St. L., Hickory Branch

*Idle.

Carnegie Coal Co.							
Carnegie,	Allegheny,	J. H. Sanford,	Pittsburg,				P. C. C. and St. L.
Oakdale,	Allegheny,						
Primrose,	Washington,						
Fayette Coal Co.							
Chalfant,	Allegheny,	A. M. Bell,	Pittsburg,	John McVicker,	Noblestown,		P. C. C. and St. L.
Pittsburg-Buffalo Co.							
Francis,	Washington,	D. G. Jones,	Canonsburg,	R. K. Griffin,	Burgettstown,		P. C. C. and St. L.
Panhandle Mining Co.							
Blyth,	Allegheny,	John Blyth,	Pittsburg,	Thomas Allsop,	Morgan,		P. C. C. and St. L.
Verner Coal and Coke Co.							
Verner,	Washington,	Thomas Beadling,	Carnegie,				P. C. C. and St. L.
Bulger Block Coal Co.							
Bulger,	Washington,	D. J. Kennedy,	Pittsburg,	A. G. Hunt,	Bulger,		P. C. C. and St. L.
Hugh McHugh							
Cherry,	Allegheny,	Hugh McHugh,	Walkers Mills,				P. C. C. and St. L.
Pryor Coal Co.							
Avella No. 1,	Washington,	William R. Turney,	Greensburg,				W. P. T.
Hormel Coal Co.							
Federal No. 2,	Allegheny,	P. F. Hormel,	Hickman,				P. C. and Y.
Beechmont,							
Oak Ridge,							
Steen Coal Co.							
Willa No. 2,	Allegheny,	W. J. Steen,	Woodville,	D. L. Steen,	Presto,		P. C. and Y.
J. H. Sanford Coal Co.							
Armide,	Washington,	J. H. Sanford,	Pittsburg,	B. F. Tarr,	Burgettstown,		P. C. C. and St. L., Hickory Branch
McClane Coal Co.							
Katie,	Allegheny,	W. W. McClane,	Washington,	Alex. McLean,	Bridgeville,		P. C. C. and St. L.
Pittsburg and Southwestern Coal Co.							
Donohoe,	Washington,			A. M. Gardner,	Avella,		W. P. T.
Penobscot Coal Co.							
Penobscot,	Washington,			George Morris,	Avella,		W. P. T.
Meadow Lands Coal Co.							
Meadow Lands No. 3,	Washington,	W. L. Dixon,	Pittsburg,	C. A. Neiser,	Avella,		W. P. T.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Kirkbride Coal Co. Kirkbride,	Allegheny,	George F. Kirkbride,	Carnegie,	Albert Rudge,	Oakdale,	P. C. C. and St. L.
Walter J. Flanagan Cedar Grove,	Washington,	Walter J. Flanagan,	Hanlin Station,			W. P. T.
Island Run Coal Co. Dawson,	Beaver,	J. C. Rothery,	East Liverpool, O.,	Frank Maloney,	East Liverpool, O.,	East Liverpool Traction and Light Company
McDonald Coal Co. Willow Grove,	Allegheny,	W. S. Lockhart,	McDonald,	Charles Fereday,	McDonald,	P. C. C. and St. L.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Coal Co.																
Bridgeville,	Allegheny,	164,096	2	673	.....	164,771	.....	.....	147	281	1	....	14,250	200	175	22
Brier Hill,	Washington,	124,855	664	1,011	.....	126,530	.....	.....	133	374	1	....	30,000	250	150	32
Creedmoor,	Washington,	241,239	13,456	1,520	.....	256,215	.....	.....	217	296	....	2	18,645	300	1,200	25
Essen No. 2,	Allegheny,	227,121	10,123	327	.....	237,571	.....	.....	246	296	....	1	*	*	*	20
Essen No. 3,	Allegheny,	.....	205	23	.....	228	.....	.....	18	3	....	....	*	*	*	1
Grant,	Allegheny,	239,530	2,315	1,058	.....	242,903	.....	.....	219	318	1	4	*	*	*	19
Idlewood,	Allegheny,	115,700	3,285	1,717	.....	120,702	.....	.....	233	150	....	....	*	*	*	16
Jumbo,	Washington,	247,294	19,075	715	.....	267,084	.....	.....	237	413	1	2	31,000	750	500	42
Laurel Hill No. 2,	Washington,	.....	236	46	.....	282	.....	.....	21	6	....	....	.....	.....	.....	2
Laurel Hill No. 5,	Allegheny,	110,894	2,470	251	.....	113,615	.....	.....	126	317	....	1	16,500	25	75	23
Mansfield No. 2,	Allegheny,	460,471	.....	4,869	.....	465,340	.....	.....	240	590	....	3	*	*	†*	52
Margerum,	Allegheny,	259,287	3	670	.....	259,960	.....	.....	279	290	....	....	33,750	280	25	22
Moon Run No. 1,	Allegheny,	703,387	.....	.....	.....	.....	.....	.....	.....	.....	....	3	.....	.....	.....	.....
Moon Run No. 2,	Allegheny,	.....	10,192	1,716	.....	715,295	.....	.....	284	702	1	....	108,500	650	.....	46
Moon Run No. 3,	Allegheny,	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	3	.....	.....	.....	.....
O. I. C.,	Allegheny,	156,844	.....	100	.....	156,944	.....	.....	156	311	....	1	*	*	*	18
Partridge,	Allegheny,	442,724	12,093	982	.....	455,799	.....	.....	284	565	....	1	55,000	900	25	38
Ridgway,	Washington,	139,365	5,963	872	.....	146,200	.....	.....	140	300	....	1	14,500	400	600	20
Shaw,	Washington,	252,551	6,749	539	.....	259,839	.....	.....	205	334	1	3	55,065	400	.....	27
Totals,		3,885,358	86,831	17,089	.....	3,989,278	.....	.....	.....	5,546	6	25	377,210	4,155	2,750	425

*No record kept.
†Permissible explosive used.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
National Mining Co.																
National No. 1,	Allegheny,	404,293	9,011	1,013	.....	414,317	.....	.....	205	466	1	2	34,525	525	100	28
National No. 2,	Allegheny,	389,788	9,376	1,150	.....	400,314	.....	.....	198	504	....	....	33,350	500	100	27
Totals,		794,081	18,387	2,163	.....	814,631	.....	.....	.....	970	1	2	67,875	1,025	200	55
Pittsburg and Eastern Coal Co.																
Pittsburg and Eastern No. 1,	Washington,	88,709	4,800	.....	.....	93,509	.....	.....	100	214	....	1	*	*	*	11
Pittsburg and Eastern No. 2,	Washington,	169,930	6,000	.....	.....	175,930	.....	.....	189	212	....	1	*	*	*	13
Pittsburg and Eastern No. 3,	Washington,	177,003	9,600	3,114	.....	189,717	.....	.....	189	231	....	3	*	*	*	15
Totals,		435,642	20,400	3,114	.....	459,156	.....	.....	.....	657	....	5	.....	.....	.....	39
Carnegie Coal Co.																
Carnegie,	Allegheny,	93,741	2,100	48	.....	95,889	.....	.....	203	109	3	....	*	*	*	10
Oakdale,	Allegheny,	84,316	1,224	72	.....	85,612	.....	.....	119	199	....	....	*	*	*	12
Primrose,	Washington,	160,551	4,500	195	.....	165,246	.....	.....	176	220	1	1	*	*	*	14
Totals,		338,608	7,824	315	.....	346,747	.....	.....	.....	528	4	1	.....	.....	.....	36
Fayette Coal Co.																
Chalfant,	Allegheny,	305,804	6,360	901	.....	313,065	.....	.....	242	399	3	....	*	*	*	17
Pittsburg-Buffalo Co.																
Francis,	Washington,	171,827	11,575	210	.....	183,612	.....	.....	226	284	....	2	50,000	4,000	.....	22

*No record kept.

Panhandle Mining Co.															
Blyth,	Allegheny,	145,966	2,000	418		148,384			206	154	3	*			9
Verner Coal and Coke Co.															
Verner,	Washington,	141,195	4,745	500		146,440			159	267	1	*			10
Bulger Block Coal Co.															
Bulger,	Washington,	88,943	4,221	663		93,827			122	172	2	15,600	500		11
Hugh McHugh															
Cherry,	Allegheny,	75,000	4,000	3,000		82,000			233	90		*			6
Pryor Coal Co.															
Avella No. 1,	Washington,	66,776	1,477	105		68,358			115	112	2	4,500			1
Hormel Coal Co.															
Federal No. 2,	Allegheny,	64,240	300	26		64,566			231	91	5	*			5
Beechmont,		1,963				1,963			126	8					1
Oak Ridge,		539				539			20	9					1
Totals,		66,742	300	26		67,068				108	5				7
Steen Coal Co.															
Willa No. 2,	Allegheny,	65,759	370	2		66,131			228	83	1	*			5
J. H. Sanford Coal Co.															
Armide,	Washington,	61,767	2,800	30		64,597			182	100	1	2	*		1
McClane Coal Co.															
Katie,	Allegheny,	53,961	2,500	600		57,061			130	80	1	1	4,000	300	7
Pittsburg and Southwestern Coal Co.															
Donohoe,	Washington,	40,800	2,200	500		43,500			116	87		*			8
Penobscot Coal Co.															
Penobscot,	Washington,	42,326	367	230		42,923			193	59		*			8
Meadow Lands Coal Co.															
Meadow Lands No. 3,	Washington,	36,352	1,182			37,534			82	172		3,500			14
Kirkbride Coal Co.															
Kirkbride,	Allegheny,	35,702	1,430			37,132			185	53		*			4
Walter J. Flanagan															
Cedar Grove,	Washington,	31,851	105	210		32,166			125	73		4,000	100		3

*No record kept.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Island Run Coal Co. Dawson,	Beaver,	30,198	.....	.....	.....	30,198	.....	.....	320	35	....	....	7,500	25	.....	2
McDonald Coal Co. Willow Grove,	Allegheny,	28,669	200	200	.....	29,069	.....	.....	83	79	....	....	*	.....	.....	8
Grand totals,		6,943,327	179,274	30,276	.....	7,152,877	.....	.....	.....	10,108	17	51	534,185	10,105	2,950	698

*No record kept.

TABLE 2—Part 2

Names of Operators	County	Number of Boilers: Cylindrical	Number of Boilers: Horse power	Number of Boilers: Tubular	Number of Boilers: Horse power	Number of Boilers: Total horse power	Locomotives: Steam	Locomotives: Air	Locomotives: Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
Pittsburg Coal Co.,	Allegheny, Washington,	2	80	61	9,295	9,375	1		33	51	8,043	47	9,352	5,550	18	9
National Mining Co.,	Allegheny,			8	2,400	2,400			10	10	1,380	10	1,000	364	6	2
Pittsburg and Eastern Coal Co.,	Washington,	17	2,550			2,550			4	5	1,200	6	270	200	2	3
Carnegie Coal Co.,	Allegheny, Washington,	8	1,100	2	500	1,600			4	8	1,335	8	1,734	1,400	5	
Fayette Coal Co.,	Allegheny,			5	750	750			3	5	535	4	624	600	2	2
Pittsburg-Buffalo Co.,	Washington,			4	1,000	1,000			2	12	1,000	6	1,015	925	2	2
Panhandle Mining Co.,	Allegheny,			2	250	250			1	3	225	2	500	200	1	
Verner Coal and Coke Co.,	Washington,			5	700	700			4	4	800	4	125	125	2	2
Bulger Block Coal Co.,	Washington,			3	450	450			2	6	500	3	758	300	2	
Hugh McHugh,	Allegheny,			1	80	80			1	1	80	1	375	375	1	
Pryor Coal Co.,	Washington,			2	300	300			2	1	300	1	100	100	1	
Hormel Coal Co.,	Allegheny,								1							
Steen Coal Co.,	Allegheny,			1	60	60			1	1	25					
J. H. Sanford Coal Co.,	Washington,			2	400	400			3	1	200	6		1,000	1	
McClane Coal Co.,	Allegheny,			2	250	250			1	3	160				1	
Pittsburg and Southwestern Coal Co.,	Washington,			2	250	250				2	60	1	500			1
Penobscot Coal Co.,	Washington,			1	150	150				2	175	1	35		1	
Meadow Lands Coal Co.,	Washington,			3	450	450				5	850	1	80	40	1	1
Kirkbride Coal Co.,	Allegheny,			2	250	250						1	60	60		2
Walter J. Flanagan,	Washington,			2	300	300				3	450	1	528	100	1	
McDonald Coal Co.,	Allegheny,	1	80			80				2	65					
Totals,		28	3,810	108	17,835	21,645	1		72	126	17,383	103	17,056	11,339	47	24

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburg Coal Co.,	Allegheny, Washington,	19	2	45	1,065	249	2,715	235	290	71	179	166	5,036	10	6	81	64	----	26	323	510	5,546
National Mining Co.,	Allegheny,	2	1	10	111	39	522	39	44	7	18	76	869	1	1	15	9	----	4	71	101	970
Pittsburg and Eastern Coal Co.,	Washington,	3	----	9	75	61	297	61	47	6	15	8	582	1	3	12	19	----	3	37	75	657
Carnegie Coal Co.,	Allegheny, Washington,	3	----	4	80	27	257	27	34	4	14	26	476	----	----	6	8	----	2	36	52	528
Fayette Coal Co.,	Allegheny,	1	----	3	95	15	204	15	17	4	13	------	367	1	----	4	5	----	2	20	32	399
Pittsburg-Buffalo Co.,	Washington,	1	----	2	------	28	160	28	11	2	9	12	253	1	----	5	4	----	2	19	31	284
Panhandle Mining Co.,	Allegheny,	1	----	2	36	5	70	5	8	1	6	3	137	1	----	3	3	----	1	9	17	154
Verner Coal and Coke Co.,	Washington,	1	----	2	10	18	160	18	14	5	7	5	240	1	----	4	4	----	2	16	27	267
Bulger Block Coal Co.,	Washington,	1	----	2	7	7	109	------	9	3	17	------	155	1	1	4	3	----	1	7	17	172
Hugh McHugh,	Allegheny,	1	----	----	8	3	55	3	6	1	2	------	79	1	----	2	2	----	1	5	11	90
Pryor Coal Co.,	Washington,	1	1	----	8	5	65	5	5	------	9	------	99	1	1	1	2	----	----	8	13	112
Hormel Coal Co.,	Allegheny,	1	----	----	35	3	45	3	4	1	2	1	95	2	----	2	----	----	1	8	13	108
Steen Coal Co.,	Allegheny,	1	----	1	22	3	36	3	5	------	3	------	74	1	----	1	1	----	----	6	9	83
J. H. Sanford Coal Co.,	Washington,	1	----	1	3	8	60	8	------	------	4	3	88	1	----	2	2	----	----	7	12	100
McClane Coal Co.,	Allegheny,	1	1	----	21	2	35	2	4	------	4	2	72	1	----	1	2	----	1	3	8	80
Pittsburg and Southwestern Coal Co.,	Washington,	1	----	1	------	6	44	6	7	2	4	------	71	1	----	1	3	----	1	10	16	87
Penobscot Coal Co.,	Washington,	1	----	----	6	3	27	3	6	1	1	------	48	1	----	2	2	----	----	6	11	59
Meadow Lands Coal Co.,	Washington,	1	----	1	10	10	110	10	10	1	9	------	162	----	1	1	3	----	----	5	10	172
Kirkbride Coal Co.,	Allegheny,	1	----	----	13	4	22	4	3	------	1	------	48	----	----	----	2	----	1	2	5	53
Walter J. Flanagan,	Washington,	1	----	----	------	4	50	4	2	1	3	------	65	----	1	1	1	----	----	5	8	73
Island Run Coal Co.,	Beaver,	1	----	----	------	2	22	2	2	------	2	------	31	----	----	1	----	----	----	3	4	35
McDonald Coal Co.,	Allegheny,	1	----	1	15	4	40	------	6	1	1	------	69	1	----	1	2	----	1	5	10	79
Totals,		45	5	84	1,620	506	5.105	481	534	111	323	302	9,116	27	14	150	141	----	49	611	992	10,108

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburg Coal Co.,	Allegheny, Washington,	8	7	9	9	13	17	20	22	21	21	19	21	187
National Mining Co.,	Allegheny,	15	13	16	13	13	15	14	18	25	20	20	20	202
Pittsburg and Eastern Coal Co.,	Washington,	4	6	6	17	17	23	21	13	15	15	14	8	159
Carnegie Coal Co.,	Allegheny, Washington,	6	10	10	10	12	12	10	17	23	21	19	16	166
Fayette Coal Co.,	Allegheny,	14	15	13	16	21	25	24	22	23	23	23	23	242
Pittsburg-Buffalo Co.,	Washington,	9	8	10	19	25	23	25	22	23	23	22	17	226
Panhandle Mining Co.,	Allegheny,	21	20	19	11	9	11	12	13	25	22	22	21	206
Verner Coal and Coke Co.,	Washington,	3	4	7	3	15	26	10	14	23	22	19	13	159
Bulger Block Coal Co.,	Washington,	12	10	10	3	5	5	7	5	14	21	21	9	122
Hugh McHugh,	Allegheny,	14	13	10	17	22	23	24	25	24	24	23	14	233
Pryor Coal Co.,	Washington,	7	7	3	8	4	4	4	4	14	17	21	22	115
Hormel Coal Co.,	Allegheny,	8	6	6	5	6	6	8	14	16	17	16	18	126
Steen Coal Co.,	Allegheny,	14	16	14	18	19	24	25	24	------	25	23	26	228
J. H. Sanford Coal Co.,	Washington,	9	13	11	11	9	12	16	15	20	23	22	21	182
McClane Coal Co.,	Allegheny,	17	8	9	9	6	6	8	8	11	19	18	11	130
Pittsburg and Southwestern Coal Co.,	Washington,	7	7	9	5	5	6	4	7	9	21	21	15	116
Penobscot Coal Co.,	Washington,	16	12	8	11	25	13	13	20	20	17	21	17	193
Meadow Lands Coal Co.,	Washington,	12	9	7	3	2	1	------	------	10	16	20	2	82
Kirkbride Coal Co.,	Allegheny,	16	16	11	5	3	10	17	21	20	25	24	17	185
Walter J. Flanagan,	Washington,	------	------	7	10	5	16	10	14	13	16	16	18	125
Island Run Coal Co.,	Beaver,	27	25	27	27	26	26	28	27	26	26	27	28	320
McDonald Coal Co.,	Allegheny,	5	3	2	2	------	------	------	------	12	20	19	20	83

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	7	John Wiraces,	Russian,	Loader,	24	M.	1		Chalfant,	Allegheny,	Killed by fall of slate at face of his room.
	15	Aug. Brackavan,	Belgian,	Miner,	40	M.	1		Chalfant,	Allegheny,	Fatally injured by being struck by post at the face of his room.
	19	Charles Robal,	Austrian,	Miner,	25	S.			Moon Run No. 2,	Allegheny,	Fatally injured by being caught between top of loaded car on which he was riding and the roof of the entry.
Feb.	23	Alexander M'Lean,	American,	Miner,	19	S.			Katie,	Allegheny,	Killed by fall of slate at face of his room.
May	12	Tony Garlock,	Polish,	Loader,	60	S.			Chalfant,	Allegheny,	Killed by fall of slate at face of his room.
July	1	Louis Margallis,	Lithuanian,	Loader,	34	M.	1		National No. 1,	Allegheny,	Fatally injured by fall of slate at face of his room.
	14	Andy Povoski,	Polish,	Loader,	32	M.	1	2	Carnegie,	Allegheny,	Killed by fall of slate at face of his room.
	24	Miller Orsky,	Austrian,	Loader,	23	S.			Shaw,	Washington,	Fatally injured by fall of slate at face of his room.
Aug.	9	William Hutchinson,	Scotch,	Machine runner.	45	M.	1	7	Carnegie,	Allegheny,	Electrocuted by mining machine becoming charged.
	14	Thomas West,	American,	Driver,	23	S.			Grant,	Allegheny,	Fatally injured under his loaded trip.
	21	Casper Klein,	Austrian,	Miner,	65	M.	1		Bridgeville,	Allegheny,	Fatally injured by fall of slate at face of his room.
	25	Frank Kornoski,	Polish,	Miner,	61	M.	1	5	Willa No. 2,	Allegheny,	Killed by fall of slate at face of his room.
Sept.	1	John Toward,	Scotch,	Machine runner.	52	M.	1	4	Brier Hill,	Washington,	Fatally injured by fall of slate at face of room.
	2	Samuel Ayers,	American,	Laborer,	62	M.	1	2	Jumbo,	Washington,	Fatally injured by mine cars. Outside.
Oct.	6	Edward Fager,	Russian,	Machine runner	20	S.			Primrose,	Washington,	Electrocuted by mining machine becoming charged.
Nov.	26	George Bodno,	Slavonian,	Miner,	19	S.			Armide,	Washington,	Electrocuted by coming in contact with trolley wire.
Dec.	11	William Worthy,	English,	Driver,	33	S.			Carnegie,	Allegheny,	Fatally injured by being caught between loaded mine car and entry rib.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 18	George Asnick,	Austrian,	Miner,	50	M.	Blyth,	Allegheny,	Back and right leg injured by fall of roof at face of his pillar.
Feb. 19	Mike Martovick,	Austrian,	Loader,	34	S.	Francis,	Washington,	One rib broken and temple lacerated by fall of coal at face of room.
22	Victor Britten,	French,	Miner,	59	M.	National No. 1,	Allegheny	Compound fracture of right leg above knee by fall of slate at face of pillar.
March 1	Harry Bellaire,	Belgian,	Driver,	23	M.	Shaw,	Washington,	Right hand crushed between cars while coupling them and had to be amputated.
14	Sam Pavobeski,	Russian,	Loader,	29	M.	National No. 1,	Allegheny,	Face burned and right leg injured by explosion of gas at face of his entry.
24	Patrick Craig,	American,	Loader,	23	S.	Moon Run No. 1,	Allegheny,	Leg broken by being caught between empty car and rib of the entry.
26	William Troy,	German,	Loader,	18	S.	Bulger,	Washington,	Left leg broken by fall of roof.
April 6	John Salmon,	Belgian,	Loader,	34	M.	Shaw,	Washington,	Left thigh broken by fall of slate at face of his room.
12	John Derona,	Italian,	Miner,	48	S.	Katie,	Allegheny,	Back injured by fall of coal at face of his room.
13	Patrick Hays,	Irish,	Miner,	45	M.	Grant,	Allegheny,	Leg broken by fall of slate at face of room.
May 3	Albert Moncean,	Belgian,	Loader,	16	S.	Creedmoor,	Washington,	Right leg broken by fall of slate at face of room.
6	Sgwatz Slusski,	Slavonian,	Machine Runner,	38	M.	Avella No. 1,	Washington,	Leg broken by being caught between car and mining machine on entry.
6	Steve Tomiko,	Slavonian,	Miner,	42	M.	Avella No. 1,	Washington,	Leg broken by fall of rock in his room.
22	August Troy,	German,	Miner,	48	M.	Pittsburg and Eastern No. 1.	Washington,	Leg broken by fall of coal at face of his room.
22	Carl Toman,	Slavonian,	Loader,	35	M.	Francis,	Washington,	Fracture of lumbar vertebrae by fall of slate at face of his room.
27	Stamy Machinski,	Polish,	Loader,	29	S.	Mansfield No. 2,	Allegheny,	Small bone broken in leg by fall of roof at face of his room.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
June 1	Mike Garrick,	Polish,	Loader,	33	M.	Mansfield No. 2,	Allegheny,	Leg broken by fall of slate at face of his room.
18	George Frame,	Scotch,	Motorman,	18	S.	Moon Run No. 1,	Allegheny,	Arm broken by being caught between a mule and the rib of parting.
29	Baltazer Chantrenne,	Belgian,	Scraper,	20	S.	Creedmoor,	Washington,	Left leg broken above knee by fall of roof at face of room.
July 17	Frank Brown,	French,	Miner,	27	S.	Pittsburg and Eastern No. 3,	Washington,	Right leg fractured by fall of roof at face of his room.
20	Tony Mouscar,	Italian,	Loader,	30	M.	Ridgway,	Washington,	Right leg fractured by fall of slate at face of his room.
Aug. 11	Mike Handerhan,	American,	Loader,	24	S.	Grant,	Allegheny,	Sprained knee and squeezed about hips by being caught between car and rib.
14	James Chappel,	American,	Boss driver,	41	M.	Grant,	Allegheny,	Left ankle dislocated and right ankle crushed by having his feet caught between rib of entry and side of haulage motor on which he was riding.
14	Jake Skibo,	Slavonian,	Tipple hand,	28	M.	Laurel Hill No. 5,	Allegheny,	Crushed between the sides of two railroad cars on the outside of the mine.
23	Paul Bingle,	Lithuanian,	Loader,	21	S.	Essen No. 2,	Allegheny,	Leg broken by being caught between mining machine and rib of entry.
24	Lorenzo Regy,	Italian,	Miner,	39	M.	Federal No. 2,	Allegheny,	Rib broken and back bruised by fall of roof in room.
24	Tony Mosca,	Italian,	Miner,	24	S.			Right leg crushed by fall of roof in room.
24	Vincenzo Borthol,	Italian,	Miner,	19	S.	Federal No. 2,	Allegheny,	Right leg broken by fall of slate while drawing pillar.
Sept. 13	Andy Kabaloff,	Russian,	Hooker-on,	41	M.	Blyth,	Allegheny,	Compound fracture of left leg by being caught between two mine cars at foot of slope.
16	Tony Angelo,	Italian,	Loader,	45	M.	Pittsburg and Eastern No. 3,	Washington,	Leg broken by fall of slate at face.
17	John Langus,	Polish,	Loader,	35	S.	Pittsburg and Eastern No. 3.	Washington,	Ankle broken by fall of coal at face of room.

Sept.	18	A. E. Giehel,	American,	Mine foreman,	36	M.	Federal No. 2,	Allegheny,	Leg broken by haulage motor falling on him while placing it on track.
	25	George Corta,	Italian,	Miner,	23	S.	Bulger,	Washington,	Hand crushed between car and rib and had to be amputated.
Oct.	9	Edward Curtis,	English,	Loader,	51	M.	Moon Run No. 1,	Allegheny,	Compound fracture of left leg by fall of slate at face of room.
	11	George Thomas,	Welsh,	Fire-boss,	39	M.	Primrose,	Washington,	Compound fracture of right leg and right arm by being knocked down and run over by four empty cars.
	18	Kolock Frank,	Polish,	Loader,	28	S.	Grant,	Allegheny,	Left leg broken by fall of slate at face of room.
	22	John Kiseleco,	Slavonian,	Miner,	46	S.	Armide,	Washington,	Right leg fractured by fall of coal at face of room.
	22	Stanley Boorash,	Polish,	Loader,	21	S.	Mansfield No. 2,	Allegheny,	Back injured by fall of slate at face of room. He was squeezed against the side of a car.
	26	John Laing,	English,	Miner,	19	S.	Federal No. 2,	Allegheny,	Both legs broken by fall of slate at face of room.
	28	George Finger,	German,	Miner,	17	S.	Shaw,	Washington,	Left wrist broken by being caught between a car and a post along the side of entry.
Nov.	9	Frank Podmilsok,	Granish,	Driver,	32	M.	Moon Run No. 3,	Allegheny,	Arm broken by falling off mule.
	12	Winele Toucher,	Granish,	Trapper,	15	S.	O. I. C.,	Allegheny,	Left arm crushed above elbow by falling under trip of cars.
	16	Roman Jaren,	French,	Loader,	45	M.	Pittsburg and Eastern No. 2.	Washington,	Both legs broken by fall of slate at face of room.
	20	Vincent Mamalito,	Italian,	Loader,	50	M.	Verner,	Washington,	Left arm and three ribs broken and hand badly lacerated, by being dragged under loaded car in his room.
	23	Morris Hapson,	English,	Driver,	21	M.	Moon Run No. 3,	Allegheny,	Right leg broken by being caught between car and side.
	29	John Luka,	Slavonian,	Loader,	50	M.	Partridge,	Allegheny,	Injured by fall of slate.
	30	Mike Kushner,	Slavonian,	Snapper,	18	S.	Armide,	Washington,	Right arm fractured by being caught between two cars he was coupling.
Dec.	13	Hill Dixon,	Russian,	Loader,	25	S.	Jumbo,	Washington,	Bones in foot broken by fall of slate at face of room.
	13	Ed. Richards,	American,	Snapper,	38	S.	Jumbo,	Washington,	Leg broken by being caught between cars he was coupling.
	24	Isaiah Chadwick,	English,	Miner,	38	S.	Blyth,	Allegheny,	Ribs broken and back injured by fall of roof at face of pillar.
	28	John Wagner,	Slavonian,	Miner,	23	M.	Moon Run No. 3,	Allegheny,	Head lacerated and internally injured by fall of slate at face of room.

CONDITION OF MINES

PITTSBURG COAL COMPANY

Bridgeville, Brier Hill, Creedmoor, Jumbo, Margerum, Moon Run No. 3, O. I. C., Partridge and Shaw mines in good condition. In Essen No. 2, Grant, Idlewood, Laurel Hill No. 5, Mansfield No. 2, Moon Run Nos. 1 and 2 and Ridgway mines the ventilation and drainage should be improved. Champion, Dickson, Essen No. 3 and Laurel Hill No. 2 mines did not come under the law.

NATIONAL MINING COMPANY

National Nos. 1 and 2.—In good condition. Shot-firers are employed in these mines to fire all shots and have authority to refuse to put off any blast they think unsafe for any cause whatever.

PITTSBURG AND EASTERN COAL COMPANY

Pittsburg and Eastern Nos. 1, 2 and 3.—In very good condition. No. 1 mine was idle the last four months of the year.

CARNEGIE COAL COMPANY

Carnegie.—Ventilation needs improvement; drainage fair.
Oakdale.—In excellent condition.
Primrose.—Ventilation fair; drainage good.

FAYETTE COAL COMPANY

Chalfant.—Ventilation should be improved; drainage good.

PITTSBURG-BUFFALO COMPANY

Francis.—Ventilation good; drainage fair.

PANHANDLE MINING COMPANY

Blyth.—Ventilation and drainage in good condition.

VERNER COAL AND COKE COMPANY

Verner.—Ventilation needs improvement; drainage fair.

BULGER BLOCK COAL COMPANY

Bulger.—Ventilation and drainage fair.

HUGH McHUGH

Cherry.—Ventilation and drainage needed improvement in old part of the mine. New part in good condition.

PRYOR COAL COMPANY

Avella No. 1.—In good condition.

HORMEL COAL COMPANY

Federal No. 2.—Ventilation needed improvement; drainage good.

STEEN COAL COMPANY

Willa No. 2.—In good condition.

J. H. SANFORD COAL COMPANY

Armide.—In splendid condition.

McCLANE COAL COMPANY

Katie.—In very good condition.

PITTSBURG AND SOUTHWESTERN COAL COMPANY

Donohoe.—Ventilation should be improved. Drainage satisfactory.

PENOBSCOT COAL COMPANY

Penobscot.—Condition could be improved.

MEADOW LANDS COAL COMPANY

Meadow Lands No. 3.—In fair condition.

KIRKBRIDE COAL COMPANY

Kirkbride.—Ventilation and drainage unsatisfactory.

WALTER J. FLANAGAN

Cedar Grove.—In splendid condition.

ISLAND RUN COAL COMPANY

Dawson.—Ventilation unsatisfactory; drainage fair.

McDONALD COAL COMPANY

Willow Grove.—Ventilation not satisfactory. Drainage fair.

IMPROVEMENTS

PITTSBURG COAL COMPANY

Bridgeville.—Extended mechanical haulage 3,500 feet. Removed main electric power line from main entry and placed it on the surface.

Brier Hill.—Completed new air shaft, 11 feet 4 inches by 14 feet by 140 feet deep, at face of workings, also ventilating plant, gob hoist, and tipple for disposing of refuse material.

Jumbo.—Tipple remodeled and equipped with a cross-over dump and a chain haul for handling the mine cars. A thirteen-ton electric locomotive installed for gathering the coal from the butt entries to the rope haul. Three chain mining machines added to the coal cutting equipment.

Margerum.—Extended mechanical haulage 3,675 feet.

Partridge.—Extended mechanical haulage 1,800 feet; double-tracked 1,400 feet of motor road; also installed a boiler feed water plant.

Ridgway.—Extended mechanical haulage 1,800 feet.

Shaw.—Built a new barn; placed an additional dump on the tipple.

The mines of this company have all been improved considerably by building 730 brick stoppings to the face of the workings.

PITTSBURG AND EASTERN COAL COMPANY

Nos. 2 and 3 Mines.—Installed a picking table at each mine to remove the impurities from the coal.

CARNEGIE COAL COMPANY

Primrose.—Built 145 brick stoppings, 3 overcasts and a new stable.

VERNER COAL AND COKE COMPANY

Verner.—Installed a boiler feed water softening plant, two gathering locomotives, and added two chain-cutting machines to the coal cutting equipment.

BULGER BLOCK COAL COMPANY

Bulger.—Built a carpenter shop 20 x 40 feet; installed a boiler feed water purifying plant.

HUGH McHUGH

Cherry.—Built a new ventilating furnace.

PRYOR COAL COMPANY

Avella No. 1.—Built a brick and steel overcast.

HORMEL COAL COMPANY

Federal No. 2.—Installed a new seven-foot Stine fan, driven by an electric motor.

J. H. SANFORD COAL COMPANY

Armide.—Installed an electrically driven Stine fan, eight feet in diameter.

Prosecutions for Violations of the Mining Laws

On August 23, information was made against Herman Antonis, a miner employed in the National No. 1 mine of the National Mining Company, for removing a danger signal. He pleaded guilty before the Grand Jury and was sentenced to serve thirty days in jail and to pay the costs of the prosecution.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Carnegie Free Library Building, Carnegie, April 6, 7, 8 and 9.

The Board of Examiners was composed of John I. Pratt, Inspector, Daniel Boden, Superintendent, and James Blick, Mine Foreman.

There were ninety-nine applicants examined, twenty-three for certificates as Mine Foremen and seventy-six for certificates as Fire Bosses. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

Frank M. Fritchman and William Lawlor, Jr.

EIGHTH DISTRICT

Clearfield, Centre, Tioga, Lycoming, Bradford and Clinton Counties

Philipsburg, Pa., February 21, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith to the Department my annual report in compliance with the mining law, for the year ending December 31, 1909.

The report contains the usual statistical tables, a description of the fatal and non-fatal accidents and other necessary data.

There has been a slight increase in production, also a large increase in the number of accidents over former years. The mines in general have been kept in reasonably good condition, several companies having replaced furnaces with fans.

Respectfully submitted,

JOSEPH KNAPPER,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	111
Number of mines in operation,	105
Number of tons of coal shipped to market,	3,787,548
Number of tons used at mines for steam and heat,	66,888
Number of tons sold to local trade and used by employes,	69,332
Number of tons used in the manufacture of coke,	300
Number of tons of coal produced,	3,924,068
Number of tons of coke produced,	200
Number of coke ovens,	106
Number of coke ovens in operation,	4
Number of tons of coal produced by pick mining,	2,931,776
Number of tons produced by compressed air machines,	797,711
Number of tons produced by electrical machines,	194,581
Number of persons employed inside of mines,	6,487
Number of persons employed outside, including coke workers,	650
Number of persons employed at manufacture of coke,	———
Number of fatal accidents inside of mines,	6
Number of fatal accidents outside,	———
Number of non-fatal accidents inside of mines,	24
Number of non-fatal accidents outside,	———
Number of tons of coal produced per fatal accident inside,	654,011
Number of persons employed per fatal accident inside,	1,081
Number of persons employed per fatal accident outside,	———
Number of persons employed per non-fatal accident inside,	270
Number of persons employed per non-fatal accident outside,	———
Number of wives made widows,	5
Number of children made orphans,	8
Number of steam locomotives used inside of mines,	2
Number of steam locomotives used outside,	5
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	44
Number of electric motors used outside,	———
Number of fans in use,	30
Number of furnaces in use,	62
Number of gaseous mines in operation,	———
Number of non-gaseous mines in operation,	105
Number of new mines opened,	3
Number of old mines abandoned,	———

Table A

PRODUCTION OF COAL

Names of Operators	Tons
Morrisdale Coal Company,	491,868
Morris Run Coal Mining Company,	401,952
Clearfield Bituminous Coal Corporation,	369,577
Peale-Peacock and Kerr, Incorporated,	366,361
Biossburg Coal Company,	283,344
Clarence Coal Company,	276,377
Moshannon Coal Mining Company,	179,033
Pennsylvania Coal and Coke Company, T. H. Watkins, Receiver,	148,227
Irish Brothers Coal Company,	137,560
Kelley Brothers Coal Company,	111,429
Carbon Coal and Mining Company,	100,703
Victoria Coal Mining Company,	78,236
Ghem Coal Company,	73,277
Monarch Coal Company,	61,458
Ashman Coal Company,	55,616
Atherton-Barnes Company,	52,219
Thomas J. Lee,	50,211
Fall Brook Coal Company,	47,332
Guion Coal Company,	43,152
Blair Brothers Coal Company,	38,095
Dunbar Coal Mining Company,	32,665
Red Run Coal Company,	30,444
Thomas F. Kelley,	28,774
R. H. Mull,	27,579
Golden Brothers,	26,880
J. E. Horn and Company,	26,871
Coaldale Mining Company,	24,522
W. Scott and Thomas Jenkins,	24,191
Jason Coal Company, J. Swires, Receiver,	23,623
Red Bank Coal Company,	22,531
J. F. and W. F. O'Donnoll,	22,508
Graham Coal Company, Incorporated,	21,486
Peale and Hooten,	16,009
C. H. Milsom,	15,093
Potter-Bigler and Potter,	14,711
W. F. Holt,	14,516
Atherton and Barnes,	14,211
James F. Stott,	12,855
Hayes Run Firebrick Company,	11,937
F. J. Dunham and Company,	11,400
Decatur Coal Mining Company,	11,249
Nowak Coal Company,	11,200
Long Valley Coal Company,	10,349
Burgess-England Coal Company,	10,080
Andrew G. Spears, F. G. Smith, Trustee,	9,520

Derby Branch Coal Company,	9,052
Centre Coal and Coke Company,	7,706
Matt Shaddock,	7,179
John Hill, Sr.,	6,710
Henry Miller,	6,330
Heath Brothers,	6,032
Scootac Mining Company,	5,905
A. J. Lundquist and Company,	5,692
M. J. Kelley and Company,	5,600
Harry Barnes and Company,	5,008
Lane Coal Company,	4,834
Centre Steam Coal Company,	4,552
George Bower,	3,173
John Barnes and Sons,	2,731
Smith and Gleason,	2,054
Mt. Vernon Coal Mining Company,	279
Total,	3,924,068

Production by Counties

Clearfield,	2,071,131
Centre,	957,957
Tioga,	848,282
Lycoming,	30,444
Bradford,	10,349
Clinton,	5,905
Total,	3,924,068

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Morrisdale Coal Co.,				4		4		122,967	478	83	561			120	
Morris Run Coal Mining Co.,	1		1				401,952		789	62	851	789			
Peale-Peacock and Kerr, Incorporated,				3		3		122,120	442	36	478			147	
Blossburg Coal Co.,				1		1		283,344	554	54	608			554	
Clarence Coal Co.,	1		1	2		2	276,377	138,189	387	19	406	387		194	
Moshannon Coal Mining Co.,	1		1	3		3	179,033	59,678	206	9	215	206		69	
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	1		1	2		2	148,227	74,113	298	32	330	298		149	
Irish Brothers Coal Co.,	1		1	2		2	137,560	68,780	199	12	211	199		99	
Thomas J. Lee,	1		1				50,211		80	7	87	80			
Ashman Coal Co.,				1		1		55,616	139	19	158			139	
Guion Coal Co.,				1		1		43,152	62	7	69			62	
Graham Coal Co.,				4		4		5,372	47	4	51			12	
Potter-Bigler and Potter,				1		1		14,711	24	2	26			24	
Miscellaneous companies,									2,782	304	3,086				
Totals and averages for district,	6		6	24		24	654,011	163,503	6,487	650	7,137	1,081		270	

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,												2	2	33.33
Falls of slate,	1		1										2	33.33
Mine cars,												1	1	16.67
Electricity,									1				1	16.67
Totals,	1		1						1			3	6	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,			1	2		1		1			2	2	9	37.50
Falls of slate,		1	1				1		1	3	1		8	33.33
Mine cars,	1	1	2	1									5	20.83
Explosions of powder and dynamite,						1							1	4.17
Machinery,			1										1	4.17
Totals,	1	2	5	3		2	1	1	1	3	3	2	24	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	----	----	1	----	----	----	----	----	----	----	----	----	1
Miners,	1	----	----	----	----	----	----	----	----	----	----	2	3
Machine scrapers,	----	----	----	----	----	----	----	----	1	----	----	----	1
Drivers and runners,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	1	----	1	----	----	----	----	----	1	----	----	3	6
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	2	3	3	----	2	1	1	1	3	3	2	22
Machine runners,	----	----	1	----	----	----	----	----	----	----	----	----	1
Drivers and runners,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	1	2	5	3	----	2	1	1	1	3	3	2	24
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	1	----	----	----	----	----	----	----	----	----	1
English,	----	----	----	----	----	----	----	----	----	----	----	3	3
Polish,	1	----	----	----	----	----	----	----	----	----	----	----	1
Swedish,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	1	----	1	----	----	----	----	----	1	----	----	3	6

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	2	1	----	----	----	----	----	----	----	----	4
English,	----	1	1	----	----	----	1	----	----	1	----	----	4
Scotch,	----	----	1	----	----	----	----	----	----	----	----	----	1
German,	----	----	----	----	----	1	----	----	----	----	----	2	3
Polish,	----	----	----	----	----	----	----	----	1	----	----	----	1
Hungarian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Italian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Slavonian,	----	1	----	1	----	1	----	----	----	----	----	----	3
Swedish,	----	----	----	----	----	----	----	1	----	----	----	----	1
French,	----	----	----	1	----	----	----	----	----	2	1	----	4
Belgian,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	1	2	5	3	----	2	1	1	1	3	3	2	24

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Morrisdale Coal Co.																
Morrisdale No. 1,	Shaft,	Non-gas.,	Fan,	16	5	5.4	100	1.5	Stine,	Steam,		3		34,740	96,600	236
Morrisdale No. 2,	Shaft,	Non-gas.,	Fan,	10	3.5	2	80	.75					16,800	16,800	16,800	59
Morrisdale No. 3,	Shaft,	Non-gas.,	Fan,	7	2.5	2	70	.55				2	16,000	16,000	16,000	124
Morris Run Coal Mining Co.																
Jones,	Drift,	Non-gas.,	2 Fans,	20	4.5		90	1.25	Guibal,	Electricity and Steam,		7	79,500	79,500		500
Lake,	Drift,	Non-gas.,	Furnace,								42	3	12,000	12,000	13,400	112
Clearfield Bituminous Coal Corporation																
Grassflat Nos. 9, 10, 11,	Drifts,	Non-gas.,	Furnace and Fan,	18	4.6	6	80	1.25	Brazil,	Steam,	48	7		55,800	107,500	239
Knox Run,	Drift,	Non-gas.,	Fan,	7	2.5	2	200	.75	Stine,	Steam,		2	19,600	19,600	28,000	158
Pleasant Hill,	2 Drifts,	Non-gas.,	2 Furnaces								72	4		60,000	60,000	127
Peale-Peacock and Kerr, Incorporated																
Ogle No. 1,	Drift,	Non-gas.,	Fan,	20	7.5	6	74	1.5	Kinney,	Steam,		3	96,000	34,500	96,000	115
Ogle No. 6,	Slope,	Non-gas.,	Fan,	10	2.5	2	*		Stine,	Compressed Air.						
Ogle No. 9,	Slope,	Non-gas.,	Fan,	20	7	5	80	.5	Pollock,	Steam,		3	38,000	24,000	38,000	190
Decatur No. 1,	Drift,	Non-gas.,	Natural,													4

*Idle.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Decatur No. 3,	Drift,	Non-gas.,	Natural,													6
Decatur No. 4,	Drift,	Non-gas.,	Furnace,								25		4,800	4,800	4,800	24
Decatur Nos. 7 and 8,	Drifts,	Non-gas.,	2 Furnaces								50	3	13,020	9,650	13,200	114
Blossburg Coal Co.																
Arnot No. 1,	Drift,	Non-gas.,	Furnace,								36	2	19,500	19,500	19,500	84
Arnot No. 2,	Drift,	Non-gas.,	Furnace,								36	2	25,900	25,900	25,900	107
Arnot Nos. 3 and 5,	Drift,	Non-gas.,	Fan,	18	6		80	1.5	Murphy,	Steam,		4	76,000	62,400	76,000	130
Arnot No. 7,	Drift,	Non-gas.,	Furnace,								40	2	20,900	15,750	25,200	76
Arnot No. 8,	Drift,	Non-gas.,	Furnace,								48		16,000	7,500	16,000	10
Bear Run,	Drift,	Non-gas.,	Fan,	14	4	4.5			Guibal,	Steam,		2	32,000	26,000	33,100	64
Clarence Coal Co.																
Sugar Camp No. 9,	Slope and Drift,	Non-gas.,	Furnace,								48	2	11,400	11,400	12,000	60
Sugar Camp No. 10,	Drift,	Non-gas.,	Furnace,								30		3,600	3,600	3,600	12
Sugar Camp No. 12,	Drift,	Non-gas.,	Furnace,								64	5	32,000	32,000		100
Sugar Camp No. 13,	Drift,	Non-gas.,	Furnace,								36		10,000	4,500		30
Sugar Camp No. 14,	Drift,	Non-gas.,	Furnace,								36		5,200	5,200		9
Moshannon Coal Mining Co.																
Electric,	Drift,	Non-gas.,	Furnace,								40	2	15,900	15,500	15,900	70
Moshannon No. 8,	Drift,	Non-gas.,	Natural,													8
Moshannon No. 10,	Drift,	Non-gas.,	Fan,	7	2.5	2	200	1.25	Stine,	Electricity,		2	27,000	20,100		90
Centre,	Drift,	Non-gas.,	Natural,													3

Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)																
Winburne No. 45,	Drift,	Non-gas.,	Fan,	16	8	4.5	350	.9	Robinson,	Steam,		3	69,000	28,150		112
Winburne No. 46,	Slope,	Non-gas.,	Fan,	10	8	4.5			Capell,	Electricity,		3	51,000	33,600		110
Winburne No. 47,	Drift,	Non-gas.,	Fan,	10	4	4.5	150	1	Brazil,	Electricity,		2	55,000	45,000		54
Irish Brothers Coal Co.																
Colorado No. 5,	Drift,	Non-gas.,	Fan,	10	4	3.5	72	1	Brazil,	Steam,		3	37,800	16,700	37,800	130
Cuba No. 1,	Drift,	Non-gas.,	Natural,													3
Cuba No. 2,	Drift,	Non-gas.,	Natural,													
Gearhart,	Drift,	Non-gas.,	Furnace,								36	2	12,900	12,900	12,900	32
Jefferson No. 1,	Drift,	Non-gas.,	Furnace,								36	3	9,000	8,000	9,000	50
Jefferson No. 2,	Drift,	Non-gas.,	Natural,													4
Red Jacket,	Drift,	Non-gas.,	Furnace,								36		12,500	12,250	12,500	12
Kelley Brothers Coal Co.																
Cherry Run No. 2,	Drift,	Non-gas.,	Fan,	7	2.5	2	200	1	Stine,	Steam,			33,000	5,400	33,000	100
Snow Shoe No. 5,	Drift,	Non-gas.,	Furnace,								45	3	7,400	7,400	7,800	16
Snow Shoe No. 9,	Drift,	Non-gas.,	Furnace,								30	3	10,500	10,500		16
Tunnell,	Drift,	Non-gas.,	Furnace,								30		1,200		1,200	12
Carbon Coal and Mining Co.																
Bloomington J. No. 12,	Drifts,	Non-gas.,	3 Furnaces								60	5	19,000	15,400		107
Victoria Coal Mining Co.																
Acme No. 2,	Slope,	Non-gas.,	Fan,	10	2.5	3	75	.75	Stine,	Steam,		3	29,400	16,750	30,000	123
Acme No. 5,	Drift,	Non-gas.,	Natural,													5
Acme No. 6,	Drift,	Non-gas.,	Furnace,								30		8,000	8,000	8,000	24
Ghem Coal Co.																
Ghem,	Drift,	Non-gas.,	Furnace,								42	2	18,000	17,500	18,000	103
Monarch Coal Co.																
Leader No. 3,	Drift,	Non-gas.,	Furnace,								20	2	8,520	8,520	8,520	68
Leader No. 4,	Shaft,	Non-gas.,	Steam,										10,200	10,200	10,200	35
Ashman Coal Co.																
Ghem No. 1,	Slope,	Non-gas.,	Fan,	7	2.5	2	360	1	Stine,	Steam,		2	37,500	15,000	37,800	59
Ashman No. 1,	Drift,	Non-gas.,	Furnace,								44					11
Ashman No. 3,	Drift,	Non-gas.,	Furnace,								35		11,800	4,800	11,800	50
Atherton-Barnes Co.																
Bloomington S. No. 14,	Drift,	Non-gas.,	Fan,	18	4.5	5	120	1.0	Pollock,	Electricity,		2	22,000	22,000	22,000	105
Thomas J. Lee																
Chester,	Drift,	Non-gas.,	Fan,	7	2.5	2	70	.5	Stine,	Steam,			10,800	5,400	10,800	40
Davis,	Drift,	Non gas.,	Furnace,								24		8,500	5,000		34

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Fall Brook Coal Co.																
Anna S,	Drift,	Non-gas.,	Fan,	16	3		70	1.2	Guibal,	Steam,		3	76,500	42,400	76,500	313
Antrim No. 1,*																
Antrim No. 2,*																
Guion Coal Co.																
Guion,	Drift,	Non-gas.,	Fan,	7	2.5	2	70	.75	Stine,	Steam,			12,480	1,800	12,800	71
Blair Brothers Coal Co.																
Orient Nos. 4 and 5,	Drifts,	Non-gas.,	2 Furnaces								60	2	24,700	24,700	24,700	64
Dunbar Coal Mining Co.																
Fairmont Nos. 1 and 2,	Drifts,	Non-gas.,	2 Furnaces								80	2	16,500	10,800		75
Red Run Coal Co.																
Red Run,	3 Drifts,	Non-gas.,	3 Fans,	6	1.5		120	.75	Stine,	Electricity,		2	27,900	27,900		64
Thomas F. Kelley																
Cato,	Drift,	Non-gas.,	Furnace,								36		14,000	8,000		25
R. H. Mull																
Imperial No. 1,	Drift,	Non-gas.,	Furnace,								25		8,000	8,000	9,000	24
Golden Brothers																
Coal Run,	Drift,	Non-gas.,	Natural,										5,600	2,400	5,600	54

*Idle.

J. E. Horn and Co.																	
Ophir No. 9,	Drift,	Non-gas.,	2 Furnaces								65	2	11,800	11,800	12,400	39
Coaldale Mining Co.																	
Coaldale No. 12,	Drift,	Non-gas.,	Furnace,								30		5,000	Trace,		40
W. Scott and Thomas Jenkins																	
Jenkins Brothers,	Drift,	Non-gas.,	Furnace,								20		8,200	5,600	8,200	30
Jason Coal Co. (J. Swires, Receiver)																	
Hillside,	Drift,	Non-gas.,	Furnace,								30		10,500	9,000	11,000	74
Red Bank Coal Co.																	
Bloomington S. No. 7,	Drift,	Non-gas.,	Fan,	7	2.5	2	110	.75	Stine,	Steam,			12,000	9,000	12,000	33
J. F. and W. F. O'Donnell																	
O'Donnell Brothers Nos. 1 and 2,	Drifts,	Non-gas.,	Furnace,								25		5,400	5,400	5,400	28
Graham Coal Co., Incorporated																	
Hartley,	Slope,	Non-gas.,	Furnace,								20		16,000	6,000	16,000	25
Peale and Hooten																	
Ogle No. 8,	Drift,	Non-gas.,	Furnace,								30		12,000	3,000	12,500	50
C. H. Milsom																	
Powelton No. 1,	Drift,	Non-gas.,	Natural,										10,500	6,000	10,500	14
Powelton No. 2,	Drift,	Non-gas.,	Natural,										10,800	5,700		20
Potter-Bigler and Potter																	
Horse Shoe,	Drift,	Non-gas.,	Furnace,								20		9,000	4,800		36
W. F. Holt																	
Phoenix,	Drift,	Non-gas.,	Furnace,								30		8,400	8,400	9,000	20
Atherton and Barnes																	
Troy,	Drift,	Non-gas.,	Furnace,								20		7,500	3,360	8,000	30
James F. Stott																	
Red Jacket No. 1,	Drift,	Non-gas.,	Natural,													15
Red Jacket No. 2,	Drift,	Non-gas.,	Natural,													5
Hayes Run Firebrick Co.																	
Hayes Run,	Drift,	Non-gas.,	Furnace,								36		5,250	5,250		24

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
F. J. Durham and Co.																
Royal No. 2,	Drift,	Non-gas.,	Furnace,								30		6,400	3,200	6,700	24
Decatur Coal Mining Co.																
Beacon,	Drift,	Non-gas.,	Natural,										6,600	6,600	6,600	21
Nowak Coal Co.																
Jenkins,	Drift,	Non-gas.,	Natural,										8,500	2,000	8,000	23
Long Valley Coal Co.																
Barclay,	Drift,	Non-gas.,	Fan,	6	2.5	2	50	.75	Stine,	Steam,			6,250	6,250	6,250	10
Long Valley,	Drift,	Non-gas.,	Natural,													10
Burgess-England Coal Co.																
Mitchell,	Drift,	Non-gas.,	Natural,										5,600	5,000	5,000	14
Andrew G. Spears (F. G. Smith, Trustee)																
Myers Run,	Drift,	Non-gas.,	Furnace,								30		14,400	14,400	14,400	15
Derby Branch Coal Co.																
Colorado No. 1,	Drift,	Non-gas.,	Natural,													7
Colorado No. 2,	Drift,	Non-gas.,	Natural,													6
Centre Coal and Coke Co.																
Union No. 2,	Drift,	Non-gas.,	Fan,	7	2.5	2	60	.50	Stine,	Steam,			12,500	4,500	12,500	15

Matt Shaddock Mosquito Creek,	Drift,	Non-gas.,	Furnace,								30		7,000	7,000	7,500	20
John Hill, Sr. Decatur No. 2,	Drift,	Non-gas.,	Natural,													9
Henry Miller Coal Run No. 1,	Drift,	Non-gas.,	Natural,										2,500	2,500		15
Heath Brothers Reese,	Drift,	Non-gas.,	Natural,										10,000	10,000		14
Scootac Mining Co. Scootac,	Drift,	Non-gas.,	Furnace,								25					9
A. J. Lundquist and Co. Delmar,	Drift,	Non-gas.,	Natural,										14,700	3,600		18
M. J. Kelley and Co. Kelley No. 1,	Drift,	Non-gas.,	Furnace,								20		4,050	4,050		10
Harry Barnes and Co. Tin Top,	Drift,	Non-gas.,	Furnace,								20		4,000	2,200	4,000	31
Lane Coal Co. Lane No. 5,	Drift,	Non-gas.,	Furnace,								25		2,400	2,400	2,400	8
Centre Steam Coal Co. Taylor No. 1,	Drift,	Non-gas.,	Furnace,								25					9
George Bower Bower,	Drift,	Non-gas.,	Natural,													11
John Barnes and Son Lancashire No. 2,	Drift,	Non-gas.,	Furnace,								20					10
Smith and Gleason Mt. Carmel,	Drift,	Non-gas.,	Furnace,								20	3	12,300	12,300	12,300	32
Mt. Vernon Coal Mining Co. Pauline,	Drift,	Non-gas.,	Furnace,								20					9
Cataract Coal Co. Cataract,*	Drift,	Non-gas.,	Furnace,								20					

*Idle.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Morrisdale Coal Co.,	Morrisdale No. 1.	Shaft,	Non-gas.,	26	Compressed Air,	C and B, Lower Kittanning.	54	72	36	623,642
	Morrisdale No. 2,	Shaft,	Non-gas.,	11			54	72	36	1,262
	Morrisdale No. 3,	Shaft,	Non-gas.,	14			54	72	36	30
Totals,				51						624,934
Peale-Peacock and Kerr, Incorporated	Ogle No. 1,	Drift,	Non-gas.,	10	Compressed Air,	B, Lower Kittanning,	40	44	36	78,744
	Ogle No. 9,	Slope,	Non-gas.,	6	Compressed Air,	B, Lower Kittanning,	40	44	36	38,805
Totals,				16						117,549
Moshannon Coal Mining Co.	Moshannon No. 10,	Drift,	Non-gas.,	2	Electricity,	B, Lower Kittanning,	57	66	48	61,689
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)	Winburne No. 45,	Drift,	Non-gas.,	4	Electricity,	B, Lower Kittanning,	40	44	36	80,475
	Winburne No. 46,	Slope,	Non-gas.,	1	Electricity,	B, Lower Kittanning,	40	44	36	8,475
Totals,				5						88,950

Monarch Coal Co.,	Leader No. 4	Shaft,	Non-gas.,	8	Electricity,	B, Lower Kittanning,	57	66	48	24,170
Atherton-Barnes Co.,	Bloomington S. No. 14,	Drift,	Non-gas.,	1	Electricity,	A, Brookville,	57	66	48	1,350
Thomas J. Lee,	Chester,	Drift,	Non-gas.,	1	Electricity,	B, Lower Kittanning,	44	48	40	15,422
Fall Brook Coal Co.,	Anna S.,	Drift,	Non-gas.,	18	Compressed Air,	B, Lower Kittanning,	42	48	36	33,274
Guion Coal Co.,	Guion,	Drift,	Non-gas.,	4	Compressed Air,	C, Middle Kittanning,	43	50	36	21,954
Graham Coal Co., Incorporated	Hartley,	Slope,	Non-gas.,	1	Electricity,	C, Middle Kittanning,	39	44	34	3,000
Grand totals,				107						992,292

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Morrisdale Coal Co. Morrisdale No. 1, Morrisdale No. 2, Morrisdale No. 3,	Clearfield,	Charles B. Maxwell,	Morrisdale Mines,	R. F. Alstadt, Alex Ross, Samuel Densham,	Morrisdale Mines, Morrisdale Mines, Morrisdale Mines,	N. Y. C. and H. R. Pennsylvania N. Y. C. and H. R.
Morris Run Coal Mining Co. Jones, Lake,	Tioga,	James B. Neall,	Minersville,	Malcolm McDugall,	Morris Run,	Erie and N. Y. C. and H. R.
Clearfield Bituminous Coal Corporation Grassflat Nos. 9, 10, 11, Knox Run, Pleasant Hill,	Clearfield,	R. A. Shillingford,	Clearfield,	James Adamson, Andrew Frendberg, S. R. Green,	Peale, Peale, Grassflat,	N. Y. C. and H. R.
Peale-Peacock and Kerr, Incorporated Ogle Nos. 1, 6, 9, Decatur Nos. 1, 3, 4, 7, 8,	Clearfield,	Alex. Dunsmore,	St. Benedict,	R. H. George, John C. Dunsmore,	Winburne, Philipsburg,	N. Y. C. and H. R.
Blossburg Coal Co. Arnot Nos. 1, 2, 3, 5, 7, 8, Bear Run,	Tioga,	John H. Fulford,	DuBois,	Robert E. Logan,	Arnot,	Erie
Clarence Coal Co. Sugar Camp Nos. 9, 10, 12, 13, 14.	Centre,	David Chambers,	Clarence,	David Chambers,	Clarence,	Pennsylvania
Moshannon Coal Mining Co. Electric, Moshannon No. 8, Moshannon No. 10, Centre,	Centre, Clearfield, Centre, Clearfield,	A. S. Brown,	Osceola Mills,	J. L. Reeve,	Osceola Mills,	Pennsylvania
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver) Winburne Nos. 45, 46, 47,	Clearfield,	James F. Marsteller,	Cresson,	A. O. Sommerville,	Winburne,	N. Y. C. and H. R.

Irish Brothers Coal Co.						
Colorado No. 5,	Clearfield,	George Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	N. Y. C. and H. R.
Cuba Nos. 1 and 2,						
Gearhart,						
Jefferson Nos. 1 and 2,						
Red Jacket,						Pennsylvania
Kelley Brothers Coal Co.						
Cherry Run No. 2,	Centre,	M. D. Kelley,	Snow Shoe,	H. P. Kelley,	Snow Shoe,	Pennsylvania
Snow Shoe No. 5,						N. Y. C. and H. R.
Snow Shoe No. 9,						Pennsylvania
Tunnell,						N. Y. C. and H. R.
Carbon Coal and Mining Co.						
Bloomington J. No. 12,	Clearfield,	Alex. Dunsmore,	St. Benedict,	R. H. George,	Winburne,	N. Y. C. and H. R.
Victoria Coal Mining Co.						
Acme Nos. 2, 5, 6,	Clearfield,	C. J. Wittenberg,	11 Broadway, New York City.	S. B. Wittenberg,	Philipsburg,	N. Y. C. and H. R.
Ghem Coal Co.						
Ghem,	Centre,			G. M. H. Good,	Osceola Mills,	Pennsylvania
Monarch Coal Co.						
Leader Nos. 3 and 4,	Clearfield,	H. M. Hughes,	Osceola Mills,	H. M. Hughes,	Osceola Mills,	Pennsylvania
Ashman Coal Co.						
Ghem No. 1,	Clearfield,	R. H. Buchanan,	Philipsburg,	R. H. Buchanan,	Philipsburg,	N. Y. C. and H. R.
Ashman Nos. 1 and 3,						
Atherton-Barnes Co.						
Bloomington S. No. 14,	Centre,	John Barnes, Jr.,	Philipsburg,			N. Y. C. and H. R.
Thomas J. Lee						
Chester,	Centre,	Thomas J. Lee,	Philipsburg,	Richard Lobb,	Philipsburg,	N. Y. C. and H. R.
Davis,	Clearfield,	W. J. Davis,	Hawk Run,	James Jennicks,	Philipsburg,	N. Y. C. and H. R.
Fall Brook Coal Co.						
Anna S,	Tioga,	William Howell,	Corning, N. Y.,	James Pollock,	Antrim,	N. Y. C. and H. R.
*Antrim Nos. 1 and 2,						
Guion Coal Co.						
Guion,	Clearfield,	R. Hartley,	Philipsburg,	Robert Hartley,	Philipsburg,	Pennsylvania
Blair Brothers Coal Co.						
Orient Nos. 4 and 5,	Centre,	H. C. Blair,	Tyrone,			Pennsylvania

*Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Dunbar Coal Mining Co. Fairmont Nos. 1 and 2,	Clearfield,	Thomas C. Whitehead.	Altoona,	Charles S. Askew,	Osceola Mills,	Pennsylvania
Red Run Coal Co. Red Run,	Lycoming,	D. B. Allison,	Roaring Branch,	D. B. Allison,	Roaring Branch,	Northern Central
Thomas F. Kelley Cato,	Centre,			Thomas F. Kelley,	Clarence,	N. Y. C. and H. R.
R. H. Mull Imperial No. 1,	Clearfield,	R. H. Mull,	Philipsburg,	George F. Ferguson,	Philipsburg,	Pennsylvania
Golden Brothers Coal Run,	Tioga,					N. Y. C. and H. R.
J. E. Horn and Co. Ophir No. 9,	Centre,	E. H. Ellsworth,	Clymer,			N. Y. C. and H. R.
Coaldale Mining Co. Coaldale No. 12,	Centre,			J. W. Hooten,	Munsons,	N. Y. C. and H. R.
W. Scott and Thomas Jenkins Jenkins Brothers,	Tioga,	W. Scott Jenkins,	Blossburg,	W. Scott Jenkins,	Blossburg,	Erie
Jason Coal Co., (J. Swires, Receiver) Hillside,	Centre,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	Pennsylvania
Red Bank Coal Co. Bloomington S. No. 7,	Centre,	John L. Stratton,	Philipsburg,	John L. Stratton,	Philipsburg,	N. Y. C. and H. R.
J. F. and W. F. O'Donnoll O'Donnoll Brothers Nos. 1 and 2.†	Tioga,	W. F. O'Donnoll,	Morris Run,	Matthew Atkinson,	Morris Run,	N. Y. C. and H. R.

†New mine.

Graham Coal Co., Incorporated Hartley,	Clearfield,	W. C. Lingle,	Philipsburg,	W. C. Lingle,	Philipsburg,	N. Y. C. and H. R.
Peale and Hooten Ogle No. 8,	Clearfield,			J. W. Hooten,	Munsons,	N. Y. C. and H. R.
C. H. Milsom Powelton No. 1, Powelton No. 2,	Centre, Clearfield,	Charles H. Milsom,	Osceola Mills,	Charles H. Milsom,	Osceola Mills,	Pennsylvania Philipsburg
Potter-Bigler and Potter Horse Shoe,	Clearfield,					N. Y. C. and H. R.
W. F. Holt Phoenix,	Clearfield,	W. F. Holt,	Philipsburg,			N. Y. C. and H. R.
James F. Stott Red Jacket Nos. 1 and 2,	Centre,	James F. Stott,	Philipsburg,			N. Y. C. and H. R.
Hayes Run Firebrick Co. Hayes Run,	Centre,	C. W. Keller,	Orviston,	Thomas Johnson,	Orviston,	Private road
F. J. Dunham and Co. Royal No. 2,	Centre,	George Stott,	Philipsburg,			N. Y. C. and H. R.
Decatur Coal Mining Co. Beacon,	Clearfield,	Charles E. Potter,	Puritan,	E. L. Evans,	Osceola Mills,	Pennsylvania
Nowak Coal Co. Jenkins,	Tioga,			Adam Gruzlewski,	Blossburg,	N. Y. C. and H. R.
Atherton and Barnes Troy,	Clearfield,	John Barnes, Jr.,	Philipsburg,			N. Y. C. and H. R.
Long Valley Coal Co. Barclay, Long Valley,	Bradford,	H. J. Kinne,	Buffalo, N. Y.,	L. J. Kinne,	Laquinn,	Susquehanna and N. Y.
Burgess-England Coal Co. Mitchell,	Tioga,	George England,	Wellsboro,	George England,	Wellsboro,	Local trade
Andrew G. Spears (F. G. Smith, Trustee) Myers Run,	Clearfield,	G. M. Spears,	Karthus,	A. G. Spears,	Karthus,	N. Y. C. and H. R.
Derby Branch Coal Co. Colorado Nos. 1 and 2,	Clearfield,	Simeon Hartshorn,	Philipsburg,			N. Y. C. and H. R. and Penna.
Centre Coal and Coke Co. Union No. 3,	Centre,	A. S. Brown,	Osceola Mills,	J. L. Reeve,	Osceola Mills,	Pennsylvania

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Matt Shaddock Mosquito Creek,	Clearfield,	Matt Shaddock,	Karthus,	Matt Shaddock,	Karthus,	N. Y. C. and H. R.
John Hill, Sr. Decatur No. 2,	Clearfield,	John Hill,	Morrisdale Mines,			N. Y. C. and H. R.
Henry Miller Coal Run No. 1,	Tioga,	Charles Shultz,	Blossburg,	Charles Shultz,	Blossburg,	N. Y. C. and H. R. and Erie
Heath Brothers Reese,	Centre,					Tram road
Scootac Mining Co. Scootac,	Clinton,			I. L. Baird,	Lock Haven,	P. and E. and North Fork Scootac
A. J. Lundquist and Co. Delmar,	Tioga,			John Lundquist,	Wellsboro,	Local trade
M. J. Kelley and Co. Kelley No. 1,	Tioga,	J. H. Kiley,	Morris Run,	George L. Herron,	Blossburg,	Erie
Harry Barnes and Co. Tin Top,	Clearfield,	Harry Barnes,	Philipsburg,	Harry Barnes,	Philipsburg,	N. Y. C. and H. R.
Lane Coal Co. Lane No. 5,†	Clearfield,	H. W. Todd,	Philipsburg,			N. Y. C. and H. R.
Centre Steam Coal Co. Taylor No. 1,	Centre,			L. Redding,	Snow Shoe,	Pennsylvania
George Bower Bower,	Tioga,					Local trade
John Barnes and Sons Lancaspire No. 2,	Clearfield,					Pennsylvania
Smith and Gleason Mt. Carmel,	Clearfield,					N. Y. C. and H. R.

†New name.

Mt. Vernon Coal Mining Co.						
Pauline,	Centre,	M. H. Davidson,	Philipsburg,	M. H. Davidson,	Philipsburg,	Pennsylvania
Cataract Coal Co.						
Cataract,*	Clearfield,	J. F. Marsteller,	Cresson,			N. Y. C. and H. R.
Ellsworth-Dunham Coal Co.						
Royal No. 1,*	Clearfield,			E. H. Ellsworth,	Clymer,	N. Y. C. and H. R.
Parker Coal Co.						
Parker,*	Clearfield,					N. Y C. and H. R.
Tioga Coal Co.						
Ratler,*	Tioga,					Erie
Harleigh Coal Co.						
Harleigh,†	Clearfield,			Thomas White,	Philipsburg,	N. Y. C. and H. R.
Isaac Stage						
Karthus,*	Clearfield,			John Stage,	Clearfield,	N. Y. C. and H. R.

*Idle.
†New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Morrisdale Coal Co.																
Morrisdale No. 1,	Clearfield,	252,704	16,235	1,030	300	270,269	200	106	258	308	----	3	1,190	200	1,275	19
Morrisdale No. 2,	Clearfield,	52,751	7,392	780	--------	60,923	----------	------	260	93	----	----	425	125	850	------
Morrisdale No. 3,	Clearfield,	151,940	8,736	--------	--------	160,676	----------	------	279	160	----	1	621	175	1,020	20
Totals,		457,395	32,363	1,810	300	491,868	200	106	------	561	----	4	2,236	500	3,145	39
Morris Run Coal Mining Co.																
Jones,	Tioga,	394,000	3,360	4,592	--------	401,952	----------	------	238	713	1	----	--------	--------	--------	------
Lake,	Tioga,								238	138	----	----	62,500	3,000	--------	53
Totals,		394,000	3,360	4,592	--------	401,952	----------	------	------	851	1	----	62,500	3,000	--------	53
Clearfield Bituminous Coal Corporation																
Grassflat Nos. 9, 10, 11,	Clearfield,	166,273	516	1,070	--------	167,859	----------	------	162	290	----	----	32,500	100	--------	29
Knox Run,	Clearfield,	99,612	392	346	--------	100,350	----------	------	157	180	----	----	25,000	200	--------	12
Pleasant Hill,	Clearfield,	99,452	1,132	784	--------	101,368	----------	------	137	210	----	----	10,200	600	--------	14
Totals,		365,337	2,040	2,200	--------	369,577	----------	------	------	680	----	----	67,700	900	--------	55
Peale-Peacock and Kerr, Incorporated																
Ogle No. 1,	Clearfield,	115,799	2,617	687	--------	119,103	----------	------	246	171	----	3	25,025	425	--------	3
Ogle No. 6,	Clearfield,	42	--------	--------	--------	42	----------	------	1	9	----	----	25	--------	--------	------
Ogle No. 9,	Clearfield,	145,287	2,281	141	--------	147,709	----------	------	251	170	----	----	29,675	150	--------	------

Decatur No. 1,	Clearfield,	3,277				3,277		185	3			750			1
Decatur No. 3,		5,302				5,302		252	6			1,250			1
Decatur No. 4,		32,865				32,865		272	31			7,750	50		3
Decatur Nos. 7 and 8,		58,063				58,063		197	88			15,000	350		5
Totals,		360,635	4,898	828		366,361			478		3	79,475	975		13
Blossburg Coal Co.															
Arnot No. 1,	Tioga,							111	90						
Arnot No. 2,								123	120						
Arnot No. 3,								125	89						
Arnot No. 5,		234,207	3,465	2,685		240,357		123	102		1				38
Arnot No. 7,								116	73						
Arnot No. 8,									56						
Bear Run,		41,509	1,164	314		42,987		139	78						
Totals,		275,716	4,629	2,999		283,344			608		1				38
Clarence Coal Co.															
Sugar Camp No. 9,	Centre,	125,560	1,008			126,568		283	180	1	2	17,500	800		11
Sugar Camp No. 10,		22,323				22,323		280	34			2,500	300		2
Sugar Camp No. 12,		76,705	1,344	1,568		79,617		280	126			15,000	500		2
Sugar Camp No. 13,		34,358				34,358		280	42			2,000	200		2
Sugar Camp No. 14,		13,511				13,511		228	24			1,600	60		2
Totals,		272,457	2,352	1,568		276,377			406	1	2	38,600	1,860		19
Moshannon Coal Mining Co.															
Electric,	Centre,	36,127				36,127		148	77	1					10
Moshannon No. 8,	Clearfield,	8,684				8,684		225	8						1
Moshannon No. 10,	Centre,	131,508				131,508		311	127		3				9
Centre,	Clearfield,	2,714				2,714		259	3						1
Totals,		179,033				179,033			215	1	3				21
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)															
Winburne No. 45,	Clearfield,	95,901	3,276	727		99,904		223	119	1	2		600		3
Winburne No. 46,		24,708				24,708		83	110						
Winburne No. 47,		23,443		172		23,615		67	101						
Totals,		144,052	3,276	899		148,227			330	1	2		600		3
Irish Brothers Coal Co.															
Colorado No. 5,	Clearfield,	85,958	970	634		87,562		204	140				9,850	450	5
Cuba No. 1,		1,464				1,464		155	3						1
Cuba No. 2,		1,938				1,938									1
Gearhart,		21,935		43		21,978		217	32				1,975		5
Jefferson No. 1,		16,588				16,588					2		1,600		7

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Jefferson No. 2,	Clearfield,	3,283				3,283			191	33				500		2
Red Jacket,	Clearfield,	4,738		9		4,747			134	3	1			550		1
Totals,		135,904	970	686		137,560				211	1	2		14,475	450	22
Kelley Brothers Coal Co.																
Cherry Run No. 2,	Centre,	65,818	336	202		66,356			281	118			22,500	1,200		10
Snow Shoe No. 5,	Centre,	12,914	22	28		12,964			190	40			1,200	300		5
Snow Shoe No. 9,	Centre,	21,115		269		21,384			193	29			500	200		4
Tunnell,	Centre,	10,652	28	45		10,725			236	29			4,500	200		4
Totals,		110,499	386	544		111,429				216			28,700	1,900		23
Carbon Coal Mining Co.																
Bloomington J. No. 12,	Clearfield,	100,157	529	17		100,703			248	120			19,650	50		15
Victoria Coal Mining Co.																
Acme No. 2,	Clearfield,	63,099	4,247	231		67,577			158	132			450	300		19
Acme No. 5,	Clearfield,	1,134		24		1,158			37	5						
Acme No. 6,	Clearfield,	9,501				9,501			148	24						
Totals,		73,734	4,247	255		78,236				161			450	300		19
Ghem Coal Co.																
Ghem,	Centre,	73,221		56		73,277			215	102			7,200			10

Monarch Coal Co.																
Leader No. 3,	Clearfield,	37,232		56		37,288			238	61			660			6
Leader No. 4,	Clearfield,	22,382	1,788			24,170			184	65			2,420			4
Totals,		59,614	1,788	56		61,458				126			3,080			10
Ashman Coal Co.																
Ghem No. 1,	Clearfield,	35,326	1,578	211		37,115			93	111		1	9,375	700		9
Ashman No. 1,	Clearfield,	3,905				3,905			186	11			500	50		2
Ashman No. 3,	Clearfield,	14,494	100	2		14,596			256	36			1,875	100		3
Totals,		53,725	1,678	213		55,616				158		1	11,750	850		14
Atherton-Barnes Co.																
Bloomington S. No. 14,	Centre,	52,219				52,219			186	165			600			
Thomas J. Lee																
Chester,	Centre,	44,872	286	672		45,830			178	67	1		7,500			5
Davis,	Clearfield,	3,978		403		4,381			61	20			750			4
Totals,		48,850	286	1,075		50,211				87	1		8,250			9
Fall Brook Coal Co.																
Anna S,	Tioga,	46,348		984		47,332			58	354						30
Guion Coal Co.																
Guion,	Clearfield,	41,942	1,210			43,152			207	69		1	6,000	700		5
Blair Brothers Coal Co.																
Orient Nos. 4 and 5,	Centre,	38,095				38,095			191	44			10,000	40		7
Dunbar Coal Mining Co.																
Fairmont Nos. 1 and 2,	Clearfield,	32,665				32,665			160	82			5,200			14
Red Run Coal Co.																
Red Run,	Lycoming,	29,110	560	774		30,444			97	84			24,000	1,000		2
Thomas F. Kelley																
Cato,	Centre,	28,573	67	134		28,774			209	49			11,250			2
R. H. Mull																
Imperial No. 1,	Clearfield,	27,552	2	25		27,579			275	28			5,375			5
Golden Brothers																
Coal Run,	Tioga,	26,880				26,880			208	48			5,000	400		3
J. E. Horn and Co.																
Ophir No. 9,	Centre,	26,822	29	20		26,871			281	35			5,975	175		8

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Coaldale Mining Co.																
Coaldale No. 12,	Centre,	24,522				24,622			177	35			5,825	275		3
W. Scott and Thomas Jenkins																
Jenkins Brothers,	Tioga,	23,967		224		24,191			216	36						4
Jason Coal Co. (J. Swires, Receiver)																
Hillside,	Centre,	22,671	448	504		23,623			111	68						5
Red Bank Coal Co.																
Bloomington S. No. 7,	Centre,	22,359	40	132		22,531			190	33			5,675	150		11
J. F. and W. F. O'Donnoll																
O'Donnoll Brothers Nos. 1 and 2,	Tioga,	22,396	112			22,508			294	42			76	50		4
Graham Coal Co., Incorporated																
Hartley,	Clearfield,	20,421	956	109		21,486			180	51		4	2,250	250		4
Peale and Hooten																
Ogle No. 8,	Clearfield,	16,001	6	2		16,009			93	52			3,475	75		4
C. H. Milsom																
Powelton No. 1,	Centre,	2,661		9,352		12,013			281	16			2,500			2
Powelton No. 2,	Clearfield,	3,080				3,080			70	17						2
Totals,		5,741		9,352		15,093				33			2,500			4

Potter-Bigler and Potter																
Horse Shoe,	Clearfield,	14,711				14,711			177	26		1	1,260			3
W. F. Holt																
Phoenix,	Clearfield,	14,516				14,516			204	28						4
Atherton and Barnes																
Troy,	Clearfield,	14,211				14,211			155	24			2,500			3
James F. Stott																
Red Jacket No. 1,	Centre,	10,957		168		11,125			232	15			1,500			2
Red Jacket No. 2,	Centre,	1,730				1,730			125	5			375			1
Totals,		12,687		168		12,855				20			1,875			3
Hayes Run Firebrick Co.																
Hayes Run,	Centre,			11,937		11,937			246	10						2
F. J. Dunham and Co.																
Royal No. 2,	Centre,	11,316		84		11,400			196	29			2,250			2
Decatur Coal Mining Co.																
Beacon,	Clearfield,	11,249				11,249			110	20						4
Nowak Coal Co.																
Jenkins,	Tioga,	8,960		2,240		11,200			202	31			2,500	30		4
Long Valley Coal Co.																
Barclay,	Bradford,	7,599	131			7,730			234	13			6,250	500		10
Long Valley,		2,619				2,619			108	26			6,250	500		5
Totals,		10,218	131			10,349				39			12,500	1,000		15
Burgess-England Coal Co.																
Mitchell,	Tioga,			10,080		10,080			260	22			1,875	150		2
Andrew G. Spears (F. G. Smith, Trustee)																
Myers Run,	Clearfield,	9,296	224			9,520			141	35						4
Derby Branch Coal Co.																
Colorado No. 1,	Clearfield,	4,175				4,175			160	7			1,200			2
Colorado No. 2,	Clearfield,	4,877				4,877			192	6			1,500			2
Totals,		9,052				9,052				13			2,700			4
Centre Coal and Coke Co.																
Union No. 3,	Centre,	7,657	49			7,706			185	15						1

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Matt Shaddock Mosquito Creek,	Clearfield,	7,000	45	134		7,179			108	23			400	100		2
John Hill, Sr. Decatur No. 2,	Clearfield,	6,486		224		6,710			229	9			1,375	10		2
Henry Miller Coal Run No. 1,	Tioga,	5,724		606		6,330			240	9			800			1
Heath Brothers Reese,	Centre,			6,032		6,032			245	10			229			4
Scootac Mining Co. Scootac,	Clinton,	5,388	207	310		5,905			246	9			2,625			1
A. J. Lundquist and Co. Delmar,	Tioga,			5,692		5,692			158	11			1,150	100		2
M. J. Kelley and Co. Kelley No. 1,	Tioga,	5,600				5,600			300	9			1,250			1
Harry Barnes and Co. Tin Top,	Clearfield,	4,930		78		5,008			28	31			150			7
Lane Coal Co. Lane No. 5,	Clearfield,	4,806		28		4,834			33	28						1

Centre Steam Coal Co. Taylor No. 1,	Centre,	4,384	.....	168	.....	4,552	.....	.....	170	9	.....	.....	1,120	.....	.....	2
George Bower Bower,	Tioga,	1,680	.....	1,493	.....	3,173	.....	.....	145	11	.....	.....	.....	.....	.....	4
John Barnes and Sons Lancashire No. 2,	Clearfield,	2,731	.....	.....	.....	2,731	.....	.....	80	10	.....	.....	.....	.....	.....	2
Smith and Gleason Mt. Carmel,	Clearfield,	2,054	.....	.....	.....	2,054	.....	.....	35	29	.....	.....	250	.....	.....	3
Mt. Vernon Coal Mining Co. Pauline,	Centre,	279	.....	.....	.....	279	.....	.....	13	9	.....	.....	.....	.....	.....	2
Grand totals,		3,787,548	66,888	69,332	300	3,924,068	200	106	.....	7,137	6	24	459,601	29,915	3,595	563

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Morrisdale Coal Co.,	Clearfield,			16	2,300	2,300			9	16	2,160	9	4,850	4,850	2	5
Morris Run Coal Mining Co.,	Tioga,			3	325	325			6	5	500				4	1
Clearfield Bituminous Coal Corporation,	Clearfield,			6	710	710			2	5	400	4	500	260	2	
Peale-Peacock and Kerr, Incorporated,	Clearfield,			10	1,450	1,450			8	8	1,400	1	150	100	4	2
Blossburg Coal Co.,	Tioga,			6	700	700	3		5	4	550				3	
Clarence Coal Co.,	Centre,						2				52					
Moshannon Coal Mining Co.,	Clearfield and Centre.								2						1	
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	Clearfield,			6	950	950			5	4	750	17	4,400	3,400	2	
Irish Brothers Coal Co.,	Clearfield,			2	300	300			2	4	160				2	
Kelley Brothers Coal Co.,	Centre,			1	50	50	1			1	47	8	800	800		1
Carbon Coal and Mining Co.,	Clearfield,			2	100	100				1	100					
Victoria Coal Mining Co.,	Clearfield,	5	300	1	60	360				3	235	5	1,672	1,011		
Monarch Coal Co.,	Clearfield,			2	300	300				2	110	2	450	400	1	
Ashman Coal Co.,	Clearfield,			2	175	175			1	2	150	3	350	275	1	
Atherton-Barnes Co.,	Centre,								1			2	550	550	1	
Thomas J. Lee,	Clearfield and Centre.			2	150	150				2	75	1	200	200		
Fall Brook Coal Co.,	Tioga,			4	320	320				4	320					2
Guion Coal Co.,	Clearfield,			2	140	140				3	160	2	200	200		1
Red Run Coal Co.,	Lycoming,			4	240	240			3	2	325				2	
Thomas F. Kelley,	Centre,						1				32					

Jason Coal Co. (J. Swires, Receiver),	Centre,			2	160	160				1	100	1	200	200		
Red Bank Coal Co.,	Centre,			1	30	30				1	12					
Graham Coal Co., Incorporated,	Clearfield,			1	150	150				1	50	1	250	200	1	
Peale and Hooten,	Clearfield,											1	250	100	1	
Long Valley Coal Co.,	Bradford,			1	50	50				2	50					
Centre Coal and Coke Co.,	Centre,			1	50	50				1	35					
Totals,		5	300	75	8,710	9,010	7		44	72	7,773	57	14,822	12,546	27	12

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside									
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Morrisdale Coal Co.,	Clearfield,	3	2	----	20	18	301	18	54	19	36	7	478	1	3	11	20	----	7	41	83	561
Morris Run Coal Mining Co.,	Tioga,	3	1	----	655	------	------	------	56	38	------	36	789	2	----	15	5	----	4	36	62	851
Clearfield Bituminous Coal Corporation,	Clearfield,	3	3	----	544	------	------	------	33	13	10	15	621	----	1	6	6	----	2	44	59	680
Peale-Peacock and Kerr, Incorporated,	Clearfield,	4	----	----	280	13	96	13	19	6	6	5	442	2	----	4	7	----	2	21	36	478
Blossburg Coal Co.,	Tioga,	6	----	----	484	------	------	------	30	5	------	29	554	----	1	7	6	----	4	36	54	608
Clarence Coal Co.,	Centre,	5	----	----	351	------	------	------	14	4	7	6	387	1	5	3	2	----	1	7	19	406
Moshannon Coal Mining Co.,	Clearfield and Centre.	2	----	----	117	2	68	2	7	------	8	------	206	----	----	3	----	----	----	6	9	215
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	Clearfield,	3	----	----	158	7	104	7	8	1	9	1	298	1	----	4	5	----	2	20	32	330
Irish Brothers Coal Co.,	Clearfield,	3	----	----	182	------	------	------	8	2	4	------	199	1	----	5	2	----	----	4	12	211
Kelley Brothers Coal Co.,	Centre,	4	----	----	160	1	2	1	9	1	11	------	189	4	4	5	1	----	4	9	27	216
Carbon Coal and Mining Co.,	Clearfield,	1	----	----	100	------	------	------	5	------	3	2	111	1	----	1	3	----	----	4	9	120
Victoria Coal Mining Co.,	Clearfield,	2	----	----	110	------	------	------	9	------	23	2	146	1	----	3	6	----	1	4	15	161
Ghem Coal Co.,	Centre,	1	----	----	90	------	------	------	5	------	------	3	99	----	----	1	----	----	----	2	3	102
Monarch Coal Co.,	Clearfield,	2	----	----	53	3	42	3	8	1	4	------	116	1	----	2	3	----	1	3	10	126
Ashman Coal Co.,	Centre,	2	----	----	126	------	------	------	7	1	3	------	139	3	----	2	2	----	3	9	19	158
Atherton-Barnes Co.,	Centre,	1	----	----	131	2	19	2	1	1	3	------	160	1	1	2	----	----	1	------	5	165
Thomas J. Lee,	Centre and Clearfield.	2	----	----	45	2	18	2	7	------	2	2	80	----	----	1	2	----	----	4	7	87
Fall Brook Coal Co.,	Tioga,	1	----	----	85	26	130	26	14	3	2	11	298	----	1	4	6	----	----	45	56	354
Guion Coal Co.,	Clearfield,	1	----	----	30	3	20	3	3	1	1	------	62	1	----	1	2	----	1	2	7	69
Blair Brothers Coal Co.,	Centre,	1	----	----	35	------	------	------	3	------	1	------	40	1	----	1	----	----	1	1	4	44

Dunbar Coal Mining Co.,	Clearfield,	2			66				6	1	1		76	1		1			1	3	6	82
Red Run Coal Co.,	Lycoming,	1			36					1		4	42	1	1	2	1		1	36	42	84
Thomas F. Kelley,	Centre,	1			40				2		1		44		1		2		1	1	5	49
R. H. Mull,	Clearfield,	1			22				3				26							2	2	28
Golden Brothers,	Tioga,	1			45				2				48									48
J. E. Horn and Co.,	Centre,	1			30				1			1	33	1						1	2	35
Coaldale Mining Co.,	Centre,	1			30				1			1	33							2	2	35
W. Scott and Thomas Jenkins,	Tioga,	1			29				4				34	1					1		2	36
Jason Coal Co. (J. Swires, Receiver),	Centre,	1			55				2	1	1	1	61	1			2		1	3	7	68
Red Bank Coal Co.,	Centre,	1			28				2				31							2	2	33
J. F. and W. F. O'Donnoll,	Tioga,	1			38				3				42									42
Graham Coal Co., Incorporated,	Clearfield,	1			42				2		2		47	1		1	1		1		4	51
Peale and Hooten,	Clearfield,	1			44				3			2	50			1				1	2	52
C. H. Milsom,	Centre and Clearfield.	2			29				2				33									33
Potter-Bigler and Potter,	Clearfield,	1			21				2				24							2	2	26
W. F. Holt,	Clearfield,	1			25				2				28									28
Atherton and Barnes,	Clearfield,	1			18				3		1		23							1	1	24
James F. Stott,	Centre,	1			14				2				17	1					1	1	3	20
Hayes Run Firebrick Co.,	Centre,	1			6				1				8							2	2	10
F. J. Dunham and Co.,	Centre,	1			25				1				27	1					1		2	29
Decatur Coal Mining Co.,	Clearfield,	1			15				2				18							2	2	20
Nowak Coal Co.,	Tioga,	1	1		20				2				24	1					2	4	7	31
Long Valley Coal Co.,	Bradford,	1			27				3				31	1			2			5	8	39
Burgess-England Coal Co.,	Tioga,	1			18				1				20	1						1	2	22
Andrew G. Spears (F. G. Smith, Trustee),	Clearfield,	1			20	1	5	1	2				30			1	1			3	5	35
Derby Branch Coal Co.,	Clearfield,				11				2				13									13
Centre Coal and Coke Co.,	Centre,	1			13				1				15									15
Matt Shaddock,	Clearfield,	1			16				1	1		1	20	1		1			1		3	23
John Hill, Sr.,	Clearfield,				8				1				9									9
Henry Miller,	Tioga,				7				1				8	1							1	9
Heath Brothers,	Centre,	1			9								10									10
Scootac Mining Co.,	Clinton,	1			8								9									9
A. J. Lundquist and Co.,	Tioga,				10								10	1							1	11
M. J. Kelley and Co.,	Tioga,				8							1	9									9
Harry Barnes and Co.,	Clearfield,	1			26				2				29	1						1	2	31
Lane Coal Co.,	Clearfield,	1			25				1				27						1		1	28
Centre Steam Coal Co.,	Centre,				8				1				9									9
George Bower,	Tioga,				7				1		1		9	1					1		2	11
John Barnes and Son,	Clearfield,				8				1		1		10									10
Smith and Gleason,	Clearfield,	1			25				2				28			1					1	29
Mt. Vernon Coal Mining Co.,	Centre,				7				1				8	1							1	9
Totals,		84	7		4,695	78	805	78	369	100	141	130	6,487	38	18	89	87		47	371	650	7,137

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Morrisdale Coal Co.,	Clearfield,	24	20	18	20	22	22	24	26	22	21	23	24	266
Morris Run Coal Mining Co.,	Tioga,	25	23	26	20	16	13	14	16	18	22	20	25	238
Clearfield Bituminous Coal Corporation,	Clearfield,	14	14	14	8	6	11	3	10	18	15	16	23	152
Peale-Peacock and Kerr, Incorporated,	Clearfield,	12	11	14	12	16	15	19	22	20	21	19	19	200
Blossburg Coal Co.,	Tioga,	11	10	13	10	10	10	7	8	10	10	11	13	123
Clarence Coal Co.,	Centre,	24	23	25	18	24	25	26	25	22	20	20	18	270
Moshannon Coal Mining Co.,	Clearfield, Centre,	17	17	22	18	21	18	18	16	19	24	22	24	236
Pennsylvania Coal and Coke Co., T. H. Watkins, Receiver,	Clearfield,	6	8	9	5	5	4	6	6	7	20	24	24	124
Irish Brothers Coal Co.,	Clearfield,	16	14	14	14	12	14	13	13	16	19	18	17	180
Kelley Brothers Coal Co.,	Centre,	18	15	21	16	19	20	22	14	18	19	20	23	225
Carbon Coal and Mining Co.,	Clearfield,	16	16	26	20	21	19	20	22	22	23	21	22	248
Victoria Coal Mining Co.,	Clearfield,	8	2	5	3	3	7	15	12	14	14	13	15	111
Ghem Coal Co.,	Centre,	22	18	27	15	13	11	17	15	17	17	20	23	215
Monarch Coal Co.,	Clearfield,	15	14	13	9	6	25	26	23	20	15	22	23	211
Ashman Coal Co.,	Clearfield,	13	13	17	13	11	19	19	16	16	18	23	22	200
Atherton-Barnes Co.,	Centre,	11	8	10	12	16	14	16	18	10	25	22	24	186
Thomas J. Lee,	Centre, Clearfield,	6	2	3	2	2	8	8	9	11	18	26	25	120
Fall Brook Coal Co.,	Tioga,	13	12	13	------	------	------	------	------	------	------	5	15	58
Guion Coal Co.,	Clearfield,	20	18	21	19	19	16	16	18	17	12	13	18	207
Blair Brothers Coal Co.,	Centre,	21	18	22	12	11	10	10	14	16	17	19	21	191
Dunbar Coal Mining Co.,	Clearfield,	------	6	3	12	4	12	18	16	26	17	22	24	160
Red Run Coal Co.,	Lycoming,	8	7	6	8	4	3	6	8	7	8	19	13	97
Thomas F. Kelley,	Centre,	22	18	16	13	14	11	14	10	17	25	25	24	209
R. H. Mull,	Clearfield,	23	23	24	25	25	26	24	22	23	20	19	21	275
Golden Brothers,	Tioga,	22	16	18	11	12	13	12	12	22	25	20	25	208
J. E. Horn and Co.,	Centre,	24	11	22	24	24	26	26	26	25	25	24	24	281
Coaldale Mining Co.,	Centre,	11	------	6	18	16	10	13	21	22	19	20	21	177
W. Scott and Thomas Jenkins,	Tioga,	16	17	18	12	12	14	17	18	22	22	24	24	216
Jason Coal Co., J. Swires, Receiver,	Centre,	20	10	10	10	------	1	------	------	1	17	20	22	111

Red Bank Coal Co.,	Centre,	6	1	1	15	20	21	22	20	21	22	20	21	190
J. F. and W. F. O'Donnoll,	Tioga,	25	24	24	24	25	24	26	25	24	25	24	24	294
Graham Coal Co., Incorporated,	Clearfield,	15	19	13	23	17	13	------	------	17	22	20	21	180
Peale and Hooten,	Clearfield,	5	9	------	------	------	------	------	------	12	23	22	22	93
O. H. Milsom,	Centre and Clearfield.	20	18	17	11	11	20	17	12	12	13	13	12	176
Potter-Bigler and Potter,	Clearfield,	15	20	21	10	10	11	10	9	1 0	19	20	22	177
W. F. Holt,	Clearfield,	16	16	12	12	10	12	13	18	23	24	24	24	204
Atherton and Barnes,	Clearfield,	8	10	9	8	10	19	10	7	18	12	24	20	155
James F. Stott,	Centre,	19	15	10	14	14	17	20	7	11	18	18	16	179
Hayes Run Firebrick Co.,	Centre,	20	21	20	21	20	21	20	21	20	21	20	21	246
F. J. Dunham and Co.,	Centre,	19	12	4	9	11	23	25	11	14	19	24	25	196
Decatur Coal Mining Co.,	Clearfield,	16	16	23	14	8	9	3	3	4	4	5	5	110
Nowak Coal Co.,	Tioga,	20	18	20	15	10	8	12	18	23	20	21	17	202
Long Valley Coal Co.,	Bradford,	24	13	8	9	19	23	13	13	13	11	12	13	171
Burgess-England Coal Co.,	Tioga,	26	23	20	18	19	20	21	18	22	23	25	25	260
Andrew G. Spears, F. G. Smith, Trustee,	Clearfield,	------	------	8	11	15	22	21	14	8	10	14	18	141
Derby Branch Coal Co.,	Clearfield,	5	5	11	11	9	10	10	21	22	24	24	24	176
Centre Coal and Coke Co.,	Centre,	------	------	2	14	25	19	18	23	19	18	23	24	185
Matt Shaddock,	Clearfield,	3	5	10	------	8	11	5	3	9	20	11	23	108
John Hill, Sr.,	Clearfield,	24	18	17	------	20	14	24	25	24	23	21	19	229
Henry Miller,	Tioga,	22	18	21	20	21	22	21	18	19	19	19	20	240
Heath Brothers,	Centre,	26	20	24	21	20	18	12	15	33	23	22	22	245
Scootac Mining Co.,	Clinton,	20	21	20	21	20	21	20	21	20	21	20	21	246
R. J. Lundquist and Co.,	Tioga,	22	21	10	5	------	------	------	------	25	25	25	25	158
M. J. Kelley and Co.,	Tioga,	25	24	26	26	24	26	25	25	24	26	25	24	300
Harry Barnes and Co.,	Clearfield,	------	------	------	------	------	------	------	------	------	------	5	23	28
Lane Coal Co.,	Clearfield,	------	------	------	------	------	------	------	------	------	------	10	23	33
Centre Steam Coal Co.,	Centre,	8	12	10	13	15	12	8	7	16	22	24	23	170
George Bower,	Tioga,	15	9	18	7	6	4	1	4	13	21	23	24	145
John Barnes and Sons,	Clearfield,	------	------	13	11	10	9	7	------	------	10	9	11	80
Smith and Gleason,	Clearfield,	------	------	------	------	------	------	------	------	------	------	15	20	35
Mt. Vernon Coal Mining Co.,	Clearfield,	------	------	------	------	------	------	------	------	------	------	------	13	13

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 22	John Sotak,	Polish,	Miner,	45	M.	1	2	Sugar Camp No. 9,	Centre,	Fatally injured by fall of slate at face.
Mar. 18	Charles E. Husted,	American,	Mine foreman,	57	M.	1	2	Red Jacket,	Clearfield,	Fatally injured by fall of slate while preparing working-place for a miner where roof was extremely dangerous.
Sept. 17	Carl Nelson,	Swedish,	Machine scraper.	22	S.	....	....	Winburne No. 45,	Clearfield,	Killed by electric shock. He had one hand resting on machine scraper when his neck came in contact with a live wire connected with the main feed wire.
Dec. 1	Samuel Robbins,	English,	Miner,	61	M.	1	....	Chester,	Centre,	Killed by fall of coal in room pillar work.
7	Robert Burton,	English,	Miner,	54	M.	1	2	Electric,	Centre,	Killed by fall of coal in heading pillar work.
29	Herbert Emms,	English,	Driver,	32	M.	1	2	Jones,	Tioga,	Fatally crushed in the mine at foot of plane by runaway mine car.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 5	Benjamin Smeal,	American,	Miner,	22	S.	Morrisdale No. 3,	Clearfield,	Leg fractured between loaded mine cars while going out of the mine.
Feb. 3	Andy Fedor,	Slavonian,	Miner,	35	M.	Ogle No. 1,	Clearfield,	Nose and foot broken by fall of roof slate in his working place.
4	Robert Vox,	English,	Miner,	36	M.	Jefferson No. 1,	Clearfield,	Leg fractured between side of heading and trip of empty mine cars.
Mar. 2	Crawford Lindsay,	Scotch,	Miner,	23	M.	Morrisdale No. 1,	Clearfield,	Body squeezed under a fall of roof slate at face of working place.
6	M. B. Crain,	American,	Machine runner,	26	M.	Moshannon No. 10,	Centre,	Heel and leg severely bruised by mining machine in the mine while removing it.
15	Jespie Desire,	Belgian,	Miner,	33	M.	Hartley,	Clearfield,	Collar bone fractured by fall of coal in his working place.
18	William Patrick,	English,	Miner,	50	M.	Moshannon No. 10,	Centre,	Several ribs fractured by empty cars.
18	Howard Fleck,	American,	Driver,	23	M.	Hartley,	Clearfield,	Leg and body squeezed by mine cars at his working place on main slope.
April 26	John Andrash,	Slavonian,	Miner,	49	M.	Ogle No. 1,	Clearfield,	Spine seriously injured by fall of bone coal at face of room.
27	Jay Bowersock,	American,	Miner,	18	S.	Winburne No. 45,	Clearfield,	Arm fractured between mine car and road prop.
30	Caesaer Domonie,	French,	Miner,	34	M.	Morrisdale No. 1,	Clearfield,	Back seriously injured by a fall of coal at working face.
June 23	Emil Caoskie,	German,	Miner,	58	M.	Winburne No. 45,	Clearfield,	Burned by powder while filling a cartridge in his working place.
25	John Beeley,	Slavonian,	Miner,	24	S.	Sugar Camp No. 9,	Centre,	Collar bone fractured and head lacerated by a fall of coal at face of working place.
July 31	Harry Small,	English,	Miner,	40	M.	Guion,	Clearfield,	Foot smashed by fall of slate at face of working place.
Aug. 11	Alf Larson,	Swedish,	Miner,	54	M.	Arnot No. 5,	Tioga,	Hips crushed by fall of top coal at working face.
Sept. 13	Jacob Maszer,	Polish,	Miner,	38	M.	Sugar Camp No. 9,	Centre,	Both legs fractured by fall of roof slate at face of working place.

TABLE 5.—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Oct.	4	D. Nichne,	French,	Miner,	26	S.	Hartley,	Clearfield,	Bruised about the hips by fall of roof slate at face of working place.
	4	V. Derbique,	French,	Miner,	16	S.	Hartley,	Clearfield,	Leg fractured by fall of roof slate at face of working place.
	8	Thomas Walker,	English,	Miner,	23	S.	Jefferson No. 1,	Clearfield,	Collar bone fractured by fall of roof slate at face of working place.
Nov.	3	Julius Benge,	Hungarian,	Miner,	30	M.	Ogle No. 1,	Clearfield,	Arm fractured by fall of roof slate at face of working place.
	26	Domineck Alberta,	Italian,	Miner,	20	S.	Ghem No. 1,	Clearfield,	Shoulder blade fractured and leg lacerated by fall of bony coal at face of working place.
Dec.	9	Mike Hemms,	German,	Miner,	36	M.	Morrisdale No. 1,	Clearfield,	Leg fractured by fall of bony coal at face of working place.
	18	Charles McKeown,	French,	Miner,	47	M.	Horse Shoe,	Clearfield,	Small bone in foot fractured and finger cut off by fall of coal at face of working place.
	30	Jacob Severine,	German,	Miner,	30	M.	Moshannon No. 10,	Centre,	Small bone in left foot fractured by fall of coal at face of working place.

CONDITION OF MINES

MORRISDALE COAL COMPANY

Morrisdale No. 1.—There are good stoppings on main roadways, but on some headings canvas is used for doors, and, as it is constantly being destroyed by mine cars, the section is somewhat affected. The main trouble, however, has been shortage of water for the boilers, resulting in insufficient air at the fan. Additional boilers are now being installed to remedy this defect. Drainage is defective in places, but water seems to be a safeguard against the excessive floating dust from the mining machines.

Morrisdale No. 2.—Ventilation and drainage in very fair condition. Several miners who were caught using impure oils were proceeded against according to law.

Morrisdale No. 3.—Ventilation very well conducted, but the total volume of air entering the mine was not sufficient, owing to the shortage of water for the boilers. Drainage fair.

MORRIS RUN COAL MINING COMPANY

Jones.—Ventilation and drainage in good condition. A new Stine fan, twelve feet by five feet, has been installed.

Lake.—The furnace has not sufficient power to ventilate this mine properly, but they are making a drift to the surface near the working faces to reduce the friction and increase the volume of air. Drainage is fair.

CLEARFIELD BITUMINOUS COAL CORPORATION

Grassflat Nos. 9, 10 and 11.—Ventilation and drainage fair.

Knox Run.—Ventilation and drainage fair. Shelter holes on animal haulage way needed whitewashing, which I requested to be done.

Pleasant Hill.—Ventilation in the north heading not sufficient. I ordered it to be increased. Other places in good condition. Drainage good.

PEALE-PEACOCK AND KERR, INCORPORATED

Ogle No. 1.—Ventilation and drainage in very fair condition. I requested that the roadways be cleared of refuse to allow more space for the men to pass the cars.

Ogle No. 6.—This mine worked only a few days in December and was not inspected.

Ogle No. 9.—Ventilation weak at faces of one and two left headings; other places in good condition. The management promised that the headings would be put in proper condition. Drainage good.

Decatur No. 1.—Does not come under the law as only a few men are employed.

Decatur No. 3.—Does not come under the law at the present time.

Decatur No. 4.—This mine is rapidly becoming exhausted and will soon be abandoned as far as inspections are concerned. Ventilation and drainage in fair condition.

Decatur Nos. 7 and 8.—Fairly well ventilated at time of last inspection. They were naturally too dry, and I called the attention of the officials to the matter.

BLOSSBURG COAL COMPANY

Arnot No. 1.—Ventilation was not sufficient, and part of the force was put off until a shaft 5 x 6 x 60 feet deep could be made near the working faces to increase the volume of air. This, I am informed, has been done since my visit. Drainage in good condition.

Arnot No. 2.—Ventilation was defective in the first left heading, and the mine was stopped until the volume could be increased, which has since been done. Drainage in good condition. Shelter holes were not completed.

Arnot Nos. 3 and 5.—One mine. Ventilation in fair condition. A complaint was made that the fan was shut down as soon as the mine day's work was over, but I learned this was only for a short time on account of scarcity of water. Drainage fair only in center drift.

Arnot No. 7.—Ventilation in fair condition if the furnace is kept going constantly. Drainage in fair condition.

Arnot No. 8.—A new opening. They have been driving to reach a thicker coal seam. In good condition.

Bear Run.—Ventilation and drainage in very fair condition.

CLARENCE COAL COMPANY

Sugar Camp No. 9.—It requires constant attention to the furnace to get the required volume of air, which is rather defective in summer months. Drainage in fair condition. Canvas doors were ordered kept up to conduct ventilation up the rooms.

Sugar Camp No. 10.—Ventilation in fair condition. Drainage good. Broken roof needs constant attention from the foreman.

Sugar Camp No. 12.—This is a mine of holes, opened along the crop line, and they have to depend on natural ventilation at all times. In fair condition. Drainage needed to be improved.

Sugar Camp No. 13.—Ventilation in fair condition where rooms were not turned in violation of the mining laws. I gave minute instructions about this for the future. Drainage fair.

Sugar Camp No. 14.—Ventilation and drainage in good condition.

MOSHANNON COAL MINING COMPANY

Electric.—Ventilation during part of the year was not as required by law, but upon complaint it was improved. Drainage in very fair condition.

Moshannon No. 8.—Did not come under the law, as less than ten persons were employed.

Moshannon No. 10.—This mine is becoming very extensive. The mining machines produce considerable dust, so I have advised and recommended the use of safety explosives for blasting. Ventilation and drainage in fair condition.

Centre.—A small operation; not visited.

PENNSYLVANIA COAL AND COKE COMPANY

(T. H. Watkins, Receiver)

Winburne No. 45.—Ventilation and drainage in good condition. I requested more trappers for doors, and also safety explosives for blasting.

Winburne No. 46.—This mine was not operated very regularly during the year. In good condition.

Winburne No. 47.—On my visit in October the mine had not been thoroughly cleaned up after a long period of idleness, otherwise it was in good condition.

IRISH BROTHERS COAL COMPANY

Colorado No. 5.—There was not sufficient air conducted to face of headings, but there was ample volume at the fan. I requested that this be remedied. Drainage in good condition.

Cuba Nos. 1 and 2.—Not under the law.

Gearhart.—One right heading and also right drift were not properly ventilated on my last visit. Carbon dioxide was very noticeable. I ordered that the ventilation be improved. Drainage in good condition.

Jefferson No. 1.—I ordered seventh right heading stopped on account of ventilation during the month of May, as the furnace ventilation was not effective, but recent inspections show that this condition has been improved. Drainage good.

Jefferson No. 2.—This mine was reported as working more than nine men, but on inspection I found it was not. Ventilation in fair condition.

Red Jacket.—Ventilation and drainage kept in good condition. The foreman met with a fatal accident in the performance of his duty, the roof of this mine being the worst in the State.

KELLEY BROTHERS COAL COMPANY

Cherry Run No. 2.—A new fan has been installed for ventilation and it has shown the leakage with higher pressure ventilation, but this will be remedied and put in good condition. Drainage very fair.

Snow Shoe No. 5.—Ventilation and drainage in fair condition. I requested manway to be cleaned.

Snow Shoe No. 9.—This mine is composed of five drifts along a crop line where no permanent ventilation could be maintained, but mine was kept in fair condition.

Tunnell Nos. 1 and 2.—In fair condition as to ventilation and drainage.

CARBON COAL AND MINING COMPANY

Bloomington J. No. 12.—Ventilation good. Drainage in wet seasons is defective, owing to numerous crop line holes where water comes in in volumes.

VICTORIA COAL MINING COMPANY

Acme No. 2.—Ventilation has been kept in good condition for extent of territory, but as they have acquired new properties it is now necessary to put up more permanent brattices. Drainage in fair condition, except in Hawk Run headings.

Acme No. 5.—Did not come under the law, as less than ten persons were employed.

Acme No. 6.—Ventilation and drainage in good condition. I requested that the passageway between No. 6 and No. 2 mine be cleaned up.

GHEM COAL COMPANY

Ghem.—Ventilation and drainage in good condition.

MONARCH COAL COMPANY

Leader No. 3.—The ventilation was not up to the required standard, owing to excessive use of canvas for main doors, which I ordered removed. The furnace was along the crop line where a high motive column was impossible, and in consequence had to be moved nearer the working faces constantly to maintain proper ventilation. Drainage good.

Leader No. 4.—A shaft mine. During the year they added a small seven-foot Stine fan for ventilation, and, while it is ample for the present, it will soon be inadequate. Drainage in very fair condition.

ASHMAN COAL COMPANY

Ghem No. 1.—Ventilation and drainage in fair condition, but require further improvement.

Ashman No. 1.—This mine employed only a few men in two drifts, with separate tipples, and did not come under the law.

Ashman No. 3.—Ventilation and drainage in very fair condition.

ATHERTON-BARNES COMPANY

Bloomington S. No. 14.—Ventilation, drainage and general condition good. I made information against several miners for neglecting to sprag their coal properly.

THOMAS J. LEE

Chester.—Ventilation and drainage in fair condition.

Davis.—This mine was not operated steadily during the year. Ventilation and drainage in good condition.

FALL BROOK COAL COMPANY

Anna S.—Idle most of the year owing to differences between the miners and operators. Ventilation in fair condition on my last visit. Roadways rather defective in drainage.

Antrim Nos. 1 and 2.—Indefinitely shut down.

GUION COAL COMPANY

Guion.—Ventilation ample at the fan, but not sufficient at face of workings. Drainage in fair condition.

BLAIR BROTHERS COAL COMPANY

Orient Nos. 4 and 5.—A new drift has been added on another seam. Ventilation and drainage in good condition.

DUNBAR COAL MINING COMPANY

Fairmont No. 1.—Ventilation and drainage in good condition.

Fairmont No. 2.—Part of the year the ventilation was not in good condition, but it is now very fair. Drainage good.

RED RUN COAL COMPANY

Red Run.—Ventilation and drainage in good condition.

THOMAS F. KELLEY

Cato.—Ventilation and drainage in good condition.

R. H. MULL

Imperial No. 1.—Ventilation and drainage in good condition.

GOLDEN BROTHERS

Coal Run.—Ventilation insufficient on my last visit. They are dependent on natural ventilation through old workings of Morris Run mines, which is not always sufficient. I have requested that a more permanent ventilator be installed. Drainage good.

J. E. HORN AND COMPANY

Ophir No. 9.—Ventilation and drainage in good condition, except that several rooms were turned ahead of ventilation on my last visit.

COALDALE MINING COMPANY

Coaldale No. 12.—Ventilation and drainage in good condition. There was a scarcity of supplies on one visit, to which I called the officials' attention and the matter was remedied.

W. SCOTT AND THOMAS JENKINS

Jenkins Brothers.—Ventilation and drainage were in very fair condition. Manway has been changed during the year, but was not completed on my last visit.

JASON COAL COMPANY

(J. Swires, Receiver)

Hillside.—Ventilation in fair condition. Drainage good.

RED BANK COAL COMPANY

Bloomington S. No. 7.—Ventilation and drainage in good condition. A seven-foot Stine fan has been added to the equipment to replace furnace.

J. F. AND W. F. O'DONNOLL

O'Donnoll Brothers Nos. 1 and 2.—Ventilation in fair condition. Drainage at times not good.

GRAHAM COAL COMPANY, INCORPORATED

Hartley.—Ventilation at faces of headings insufficient. Drainage defective in places. I requested that the leakage be stopped on main stoppings, also that the roads be drained, and the uninsulated wires for mining be protected.

PEALE AND HOOTEN

Ogle No. 8.—Ventilation and drainage in fair condition.

C. H. MILSOM

Powelton No. 1.—Ventilation is natural and in fair condition. Drainage good.

Powelton No. 2.—A new operation. The furnace was not completed on my last visit, but the cold weather gave ample ventilation for men employed. Drainage was not in good condition. Manway was not completed.

POTTER-BIGLER AND POTTER

Horse Shoe.—Ventilation and drainage in good condition.

W. F. HOLT

Phoenix.—Ventilation and drainage are in good condition.

ATHERTON AND BARNES

Troy.—Ventilation at face of left heading was insufficient and I requested that it be improved. In other parts of the mine it was good. Drainage in dry season is good; at other times it is not.

JAMES F. STOTT

Red Jacket No. 1.—Ventilation is natural and in good condition. Drainage good.

Red Jacket No. 2.—Did not come under the law, as less than ten men were employed.

HAYES RUN FIREBRICK COMPANY

Hayes Run.—Ventilation and drainage in fair condition.

F. J. DUNHAM AND COMPANY

Royal No. 2.—A new operation. Ventilation fair; drainage good. In warm weather the ventilation may not be sufficient.

DECATUR COAL MINING COMPANY

Beacon.—Ventilation and drainage good.

NOWAK COAL COMPANY

Jenkins.—Ventilation was not sufficient at face of workings. Drainage good. Did not come under the law the entire year.

LONG VALLEY COAL COMPANY

Barclay.—They were working ten men on my last visit, but had no mine foreman, and reduced their force rather than employ one. Ventilation in fair condition. Drainage rather defective.

Long Valley.—This mine came under the law only a short time, during which time no inspections were made. It is now partly idle.

BURGESS-ENGLAND COAL COMPANY

Mitchell.—Ventilation and drainage in good condition. This mine is busy only in winter season.

ANDREW G. SPEARS

(F. G. Smith, Trustee)

Myers Run.—Ventilation and drainage in good condition.

DERBY BRANCH COAL COMPANY

Colorado Nos. 1 and 2.—These mines formerly belong to Irish Brothers. They did not employ over nine men, hence did not come under the law.

CENTRE COAL AND COKE COMPANY

Union No. 3.—Ventilation and drainage in fair condition.

MATT SHADDOCK

Mosquito Creek.—Ventilation and drainage in fair condition.

JOHN HILL, SR.

Decatur No. 2.—This mine employed less than ten men and did not come under the law.

HENRY MILLER

Coal Run No. 1.—Ventilation fair. Did not come under the law.

HEATH BROTHERS

Reese.—Ventilation and drainage in fair condition.

SCOOTAC MINING COMPANY

Scootac.—Did not come under the law, but it was kept in fair condition.

A. J. LUNDQUIST AND COMPANY

Delmar.—Ventilation and drainage in good condition.

M. J. KELLEY AND COMPANY

Kelley No. 1.—Did not come under the law, but was in fair condition.

HARRY BARNES AND COMPANY

Tin Top.—Ventilation in very fair condition, but drainage defective. The mine was inspected only once, as it worked very little during the year.

LANE COAL COMPANY

Lane No. 5.—A new operation. Well drained and ventilated.

CENTRE STEAM COAL COMPANY

Taylor No. 1.—Did not come under the law. Ventilation and drainage in fair condition.

GEORGE BOWER

Bower.—This mine did not come under the law. There are over ten employes reported, but most of them are officials.

JOHN BARNES AND SONS

Lancashire No. 2.—Ventilation in fair condition. Drainage natural and good in dry weather.

SMITH AND GLEASON

Mt. Carmel.—Ventilation was good in one drift, but in others was not up to the standard. Drainage was not fully restored, the mine having been idle for a considerable time.

MT. VERNON COAL MINING COMPANY

Pauline.—This mine has been idle for some time. No inspection made since work was resumed.

CATARACT COAL COMPANY

Cataract.—Idle.

ELLSWORTH-DUNHAM COAL COMPANY

Royal No. 1.—Idle.

PARKER COAL COMPANY

Parker.—Idle.

TIOGA COAL COMPANY

Ratler.—Idle.

HARLEIGH COAL COMPANY

Harleigh.—A new slope mine not yet completed.

ISAAC STAGE

Karthus.—Idle.

Improvements

MORRISDALE COAL COMPANY

Morrisdale Nos. 1, 2 and 3.—Concrete stoppings have been put in on all main haulage roads.

MORRIS RUN COAL MINING COMPANY

Jones.—A new Stine fan, 12 x 5 feet, run by electricity, has been added to the equipment.

Lake.—A new drift, 6 x 7 feet, through sand rock for 300 feet and slate 85 feet, has been opened near the face of workings for ventilation and traveling way.

CLEARFIELD BITUMINOUS COAL CORPORATION

Knox Run.—Tail rope haulage has been installed on main heading, instead of mules, with additional boiler power for ventilation and haulage.

PEALE-PEACOCK AND KERR, INCORPORATED

Ogle No. 1.—An air shaft, 5 x 6 feet and 40 feet deep, has been opened near the face of main heading for ventilation.

Ogle No. 9.—They are going over all main heading stoppings with concrete to improve ventilation.

BLOSSBURG COAL COMPANY

Arnot No. 1.—An air shaft, 5 x 6 feet and 60 feet deep, has been sunk near the face of right headings for ventilation.

MONARCH COAL COMPANY

Leader No. 4.—A seven-foot Stine fan was installed during the year to replace exhaust steam.

ATHERTON-BARNES COMPANY

Bloomington S. No. 7.—A seven-foot Stine fan was installed to replace furnace.

Violations of the Mining Laws

I made an official inspection of Ophir No. 9 mine on June 12 and found the Mine Foreman, Samuel Sykes, was violating Section 3, of Article 6, of the Act of May 15, 1893, in not properly conducting the ventilation through the workings and in not having the furnace in operation. He plead guilty before the justice of the peace, and on payment of all costs, with the consent of the court and the district attorney, the case was withdrawn.

On the 23rd of December, I made an official inspection of a small mine, called Butterworths, and found over nine men regularly employed with no mine foreman in charge, as required by Section 5 of Article 6 of the Act of May 15, 1893. The operator plead guilty to the charge, and on payment of all costs, with the consent of the court and the district attorney, the case was withdrawn. He reduced his force to nine persons.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Public School, Morrisdale, April 6, 7, 8 and 9.

The Board of Examiners was composed of Joseph Knapper, Mine Inspector; Charles Maxwell, Operator, and Frank Boyd, Mine Foreman.

There were twenty-nine applicants for certificates as Mine Foremen, second grade, and one applicant for certificate as Mine Foreman, first grade. The following persons having passed a satisfactory examination were granted certificates:

Second Grade

L. M. Kelley, Snow Shoe; Joseph Round, Morrisdale; Le Baron Smith, Philipsburg.

NINTH DISTRICT

FAYETTE AND SOMERSET COUNTIES

Connellsville, Pa., February 24, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines of the Ninth Bituminous District, for the year ending December 31, 1909. I assumed charge of this district July 1, 1909.

The report includes the statistical tables, a statement of the most important improvements in and about the mines, a brief account of the prosecutions for violations of the Mining Law, and the result of the annual examination of candidates for certificates of qualification as mine foremen and fire bosses.

Respectfully submitted,

P. J. WALSH,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	53
Number of mines in operation,	45
Number of tons of coal shipped to market,	820,120
Number of tons used at mines for steam and heat,	175,853
Number of tons sold to local trade and used by employes,	118,462
Number of tons used in the manufacture of coke,	6,831,861
Number of tons of coal produced,	7,946,296
Number of tons of coke produced,	4,615,872
Number of coke ovens,	8,678
Number of coke ovens in operation,	8,232
Number of tons of coal produced by pick mining,	6,451,838
Number of tons produced by compressed air machines,	803,360
Number of tons produced by electrical machines,	691,098
Number of persons employed inside of mines,	5,343
Number of persons employed outside, including coke workers,	3,196
Number of persons employed at manufacture of coke,	1,997
Number of fatal accidents inside of mines,	22
Number of fatal accidents outside,	3
Number of non-fatal accidents inside of mines,	38
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	361,195
Number of persons employed per fatal accident inside,	243
Number of persons employed per fatal accident outside,	1,065
Number of persons employed per non-fatal accident inside,	141
Number of persons employed per non-fatal accident outside,	3,196
Number of wives made widows,	15
Number of children made orphans,	39
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	23
Number of compressed air locomotives used inside,	10
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	10
Number of electric motors used outside,	9
Number of fans in use,	43
Number of furnaces in use,	1
Number of gaseous mines in operation,	28
Number of non-gaseous mines in operation,	17
Number of new mines opened,	3
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	3,796,272
W. J. Rainey,	1,074,886
Pittsburg Coal Company,	704,658
Lincoln Coal and Coke Company,	363,100
Pittsburg and Erie Coal Company,	350,634
Dunbar Furnace Company,	346,578
Oliver and Snyder Steel Company,	299,783
Brown and Cochran,	240,879
Atlas Coke Company,	198,686
Waltersburg Coke Company,	143,442
Cambria Steel Company,	114,305
James Cochran Sons Company,	81,928
Hogsett Coal and Coke Company,	44,340
Sunshine Coal and Coke Company,	39,877
Listonburg Coal Mining Company,	39,732
Smith-Meyers and Company, Incorporated,	36,650
Genuine Connellsville Coke Company,	21,648
Lang Coal and Sand Company,	17,578
Elk Lick Coal Company,	13,373
Huff Coal Company,	5,847
Browning Coke Company,	5,790
Marietta-Ganier Coke Company,	4,980
Somerset Fuel Company,	1,330
Total,	7,946,296

Production by Counties

Fayette,	7,849,364
Somerset,	96,932
Total,	7,946,296

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	10	1	11	22	1	23	379,627	172,558	2,523	1,482	4,005	252	1,482	115	1,482
W. J. Rainey,	1		1	4		4	1,074,886	268,722	654	514	1,168	654		164	
Pittsburg Coal Co.,	2	1	3	5		5	352,329	140,932	464	366	830	232	366	93	
Lincoln Coal and Coke Co.,	1		1	1		1	363,100	363,100	221	176	397	221		221	
Pittsburg and Erie Coal Co.,	1		1	4		4	350,634	87,659	172	35	207	172		43	
Dunbar Furnace Co.,	1		1	2		2	346,578	173,289	259	29	288	259		129	
Oliver and Snyder Steel Co.,	1	1	2				299,783		239	123	362	239	123		
Brown and Cochran,	1		1				240,879		141	104	245	141			
Atlas Coke Co.,	1		1				198,686		129	95	224	129			
Hogsett Coal and Coke Co.,	1		1				44,340		47	6	53	47			
James Cochran Sons Co.,	2		2				40,964		47	34	81	24			
Miscellaneous Companies,									447	232	679				
Totals and averages for district,	22	3	25	38	1	39	361,195	209,113	5,343	3,196	8,539	243	1,065	141	3,196

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	1	----	----	----	----	1	----	----	----	2	9.09
Falls of slate,	----	----	----	----	----	----	----	2	2	1	----	1	6	27.27
Falls of roof,	----	1	----	1	----	----	----	1	----	4	1	----	8	36.36
Mine cars,	1	1	----	----	----	1	1	----	----	----	1	----	5	22.73
Blasts, premature and otherwise,	----	----	----	----	----	----	----	----	----	1	----	----	1	4.55
Totals,	1	2	----	2	----	1	1	3	3	6	2	1	22	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	----	2	----	2	66.67
Machinery,	----	1	----	----	----	----	----	----	----	----	----	----	1	33.33
Totals,	----	1	----	----	----	----	----	----	----	----	2	----	3	100.00
Grand totals inside and outside,	1	3	----	2	----	1	1	3	3	6	4	1	25	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	2	3	1	----	1	4	1	1	2	----	----	----	15	39.47
Falls of roof,	----	----	----	1	----	1	----	1	----	----	----	----	3	7.90
Mine cars,	2	2	1	1	----	4	----	----	1	2	2	1	16	42.11
Explosions of powder and dynamite,	----	1	----	----	----	----	----	----	----	----	----	----	1	2.63
Blasts, premature and otherwise,	----	----	----	----	----	----	1	----	----	----	----	----	1	2.63
Miscellaneous,	----	----	----	----	----	2	----	----	----	----	----	----	2	5.26
Totals,	4	6	2	2	1	11	2	2	3	2	2	1	38	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	1	----	----	----	----	----	----	----	1	100.00
Totals,	----	----	----	----	1	----	----	----	----	----	----	----	1	100.00
Grand totals inside and outside,	4	6	2	2	2	11	2	2	3	2	2	1	39	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	1	----	2	----	----	----	2	2	5	1	----	13
Drivers and runners,	1	1	----	----	----	1	1	----	----	----	1	----	5
Company men,	----	----	----	----	----	----	----	1	1	1	----	1	4
Totals,	1	2	----	2	----	1	1	3	3	6	2	1	22
Outside													
Elevatormen,	----	1	----	----	----	----	----	----	----	----	----	----	1
Drivers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Motormen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	----	1	----	----	----	----	----	----	----	----	2	----	3
Grand totals inside and outside,	1	3	----	2	----	1	1	3	3	6	4	1	25

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	2	1	1	----	5	2	----	3	----	----	----	16
Machine loaders,	----	1	----	----	----	----	----	1	----	----	----	----	2
Drivers and runners,	2	1	1	1	1	2	----	----	----	----	2	1	11
Doorboys and helpers,	----	1	----	----	----	----	----	----	----	----	----	----	1
Company men,	----	1	----	----	----	4	----	1	----	2	----	----	8
Totals,	4	6	2	2	1	11	2	2	3	2	2	1	38
Outside													
Tipplemen,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	----	----	----	----	1	----	----	----	----	----	----	----	1
Grand totals inside and outside,	4	6	2	2	2	11	2	2	3	2	2	1	39

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	1	----	----	----	----	1	----	----	----	1	----	3
English,	----	----	----	----	----	----	----	----	----	----	----	1	1
Scotch,	----	----	----	----	----	----	----	----	1	----	----	----	1
Irish,	1	----	----	----	----	1	----	----	----	1	1	----	4
German,	----	----	----	----	----	----	----	----	1	----	----	----	1
Polish,	----	----	----	1	----	----	----	2	1	2	----	----	6
Italian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Slavonian,	----	1	----	1	----	----	----	1	----	2	----	----	5
Austrian,	----	----	----	----	----	----	----	----	----	1	----	----	1
Magyar,	----	1	----	----	----	----	----	----	----	----	1	----	2
Totals,	1	3	----	2	----	1	1	3	3	6	4	1	25

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	2	----	1	----	2	----	----	----	1	1	1	8
English,	----	----	----	----	1	1	----	----	----	----	1	----	3
Scotch,	----	----	----	----	----	1	----	----	----	----	----	----	1
Irish,	1	----	----	----	----	1	----	----	----	----	----	----	2
German,	----	----	1	----	----	----	----	----	2	----	----	----	3
Polish,	----	1	----	----	----	1	----	----	----	----	----	----	2
Hungarian,	----	----	----	----	----	----	----	1	----	----	----	----	1
Italian,	1	----	1	----	----	----	1	----	----	----	----	----	3
Slavonian,	2	3	----	----	1	4	----	1	1	1	----	----	13
Austrian,	----	----	----	----	----	----	1	----	----	----	----	----	1
Horwat,	----	----	----	1	----	----	----	----	----	----	----	----	1
Magyar,	----	----	----	----	----	1	----	----	----	----	----	----	1
Totals,	4	6	2	2	2	11	2	2	3	2	2	1	39

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Adelaide,	Shaft,	Gaseous,	Fan,	20	6	4	85	2	Guibal,	Steam,	----	5	122,000	73,640	**100,020	169
Bitner,	Drift,	Non-gas.		12	3.5	3	100	.5	Brazil,		----	4	56,370	49,100	70,000	146
Davidson,	Shaft,	Gaseous,		25	8	7.33	70	2.2	Guibal,		----	4	107,000	41,840	109,000	168
Juniata,	Shaft,	Gaseous,		20	6	7	80	1.5	Guibal,		----	4	110,000	64,890	**97,000	145
Trotter,	Shaft,	Gaseous,		25	8	6	80	2.7	Guibal,		----	7	168,700	99,500	176,500	273
Leisenring No. 1,	Shaft,	Gaseous,		20	8	6	106	1.2	Guibal,		----	6	138,400	72,060	144,000	253
Leisenring No. 2,	Shaft,	Gaseous,		20	8	9	90	2	Capell,		----	6	141,600	84,000	148,000	239
Leisenring No. 3,	Shaft,	Gaseous,		25	6	11.5	80	3	Capell,		----	7	206,600	107,600	216,000	264
Lemont No. 1,	Slope,	Gaseous,		12	8	5.5	165	2.3	Capell,		----	2	78,400	47,600	80,000	392
Lemont No. 2,	Slope,	Gaseous,		20	6	6	75	1.8	Guibal,		----	5	118,480	71,730	121,000	------
Phillips,	Shaft,	Gaseous,		20	8	9.5	77	1.3	Clifford,		----	4	162,500	78,800	165,400	336
Youngstown,	Slope,	Gaseous,		20	6	5.5	90	2.4	Guibal,		----	4	81,000	56,700	84,200	138
W. J. Rainey																
Fort Hill,	Slope,	Gaseous,	Fan,	10	5	3.5	180	2	Lepley,	Steam,	----	2	67,200	38,640	68,900	97
	Drift,	Non-gas.		7	1.3	3	270	.4	Stine,		----	1	24,000	20,000	**23,000	------
Paul,	Slope,	Gaseous,		20	8	7	70	1	Guibal,		----	3	77,760	57,300	80,400	165
Mt. Braddock,	Slope,	Gaseous,		25	12	7.5	75	1.25	Lepley,		----	3	120,000	51,000	126,500	203
Elm Grove,	Slope,	Gaseous,		16	8	4	70	1.5	Guibal,		----	2	53,020	25,830	58,200	100
Royal,	Shaft,	Gaseous,		30	8	6	30	.75	Lepley,		----	4	130,000	52,700	133,700	89

**Part of return escapes through crop falls and holes to surface.

Pittsburg Coal Co.																
Colonial No. 1,	Slope,	Gaseous,	Fan,	16	9	7.5	142	3.1	Capell,	Steam,		7	164,200	112,770	167,200	275
Colonial No. 2,*	Drift,	Gaseous,		7	1.5	2.5			Clark,	Steam,						
Colonial No. 3,	Shaft,	Gaseous,		18	8	5	65	.5	Clifford,	Electricity,		1	61,500	61,500	70,500	59
Colonial No. 4,	Shaft,	Gaseous,		16	8	4.5	97	1.8	Wilson,	Steam,		4	92,170	49,100	100,300	130
Lincoln Coal and Coke Co.																
Lincoln No. 1,	Slope,	Gaseous,	Fan,	18	8	8.5	90	2	Clifford,	Steam,		4	144,000	72,000	150,000	196
Lincoln No. 2,	Drift,	Non-gas.	Fan,	8	3	2	120	.2	Brazil,	Compressed Air.		2	32,000	18,700	33,100	25
Pittsburg and Erie Coal Co.																
Sumner No. 1,*	Shaft,	Gaseous,	Fan,						Capell,	Steam,						
Sumner No. 2,	Slope,	Gaseous,	Fan,	16	7	6.6	120	1.8	Lepley,	Electricity,		4	98,400	43,150	102,600	172
Dunbar Furnace Co.																
Furnace No. 1,	Slope,	Gaseous,	Fan,	9	7	4	250	2.1	Capell,	Steam,		4	91,000	45,225	96,500	205
Furnace No. 2,	Drift,	Non-gas.	Fan,	10	4.5	2.5	82	.6	Guibal,	Electricity,		1	38,000	22,000	40,000	54
Oliver and Snyder Steel Co.																
Oliver No. 3,	Shaft,	Gaseous,	Fan,	18	10	8.5	90	2	Capell,	Steam,		4	180,000	83,390	180,950	239
Brown and Cochran																
Nellie,	Drift,	Non-gas.	Fan,	18	6	3.5	76	1.5	Brazil,	Steam,		3	58,000	27,750	60,420	141
Atlas Coke Co.																
Lafayette,	Slope,	Gaseous,	Fan,	20	8	6	78	1	Lepley,	Steam,		3	119,000	56,000	**100,500	129
Waltersburg Coke Co.																
Edna No. 2,	Slope,	Gaseous,	Fan,	16	7	4	64	.5	Lepley,	Electricity,		1	42,000	15,000	44,100	106
Cambria Steel Co.																
Atlas,	Slope,	Gaseous,	Fan,	15	7	7.5	90	.5	Brazil,	Steam,		1	53,800	35,450	54,040	48
Mahoning,	Slope,	Gaseous,	Fan,	14	7	7	85	.1	Capell,	Steam,		1	45,900	40,110	46,480	44
James Cochran Sons Co.																
Clarissa,	Drift,	Non-gas.	Furnace,								64	2	33,000	19,500	35,000	47
Hogsett Coal and Coke Co.																
Hogsett,	Slope,	Gaseous,	Fan,	10	3.5	2.5	85	.1	Brazil,	Steam,		1	18,900	8,000	19,760	47
Sunshine Coal and Coke Co.																
E. A. Humphries Coke Co.																
Chester,†	Slope,	Non-gas.	Steam Jet,									1	25,000	21,400	26,000	18

*Idle.
**Part of return escapes to surface through crop falls.
†Sold to Sunshine Coal and Coke Co. in October.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Listonburg Coal Mining Co. Miller,	Slope,	Non-gas.	Fan,	12	4	3	75	1.5	Cole,	Steam,		2	26,000	15,500	27,500	69
Smith-Meyers and Co., Inc. Anspach,	Drift,	Non-gas.	Fan,	8	3.5	3	343	.3	Stine,	Steam,		2	62,000	39,200	63,000	37
Genuine Connellsville Coke Co. Park Hill,	Drift,	Non-gas.	Fan,	7	3.5	1.5	90	.2	Sturdevant.	Gasoline,		1	22,000	18,000	30,000	30
Lang Coal and Sand Co. Basil,	Slope,	Non-gas.	Natural,										2,600	2,100	4,000	7
Elk Lick Coal Co. Beachley,	Drift,	Non-gas.	Fan,	12	4	3	65		Campbell,	Steam,		1	35,000	4,000	36,000	35
Huff Coal Co. Maude,	Drift,	Non-gas.	Fan,	12	3.5	3	40		Brazil,	Steam,		1	20,400	14,200	21,000	20
Browning Coke Co. Browning,	Drift,	Non-gas.	Natural,													8
Marietta-Ganier Coke Co. Junction,	Slope,	Non-gas.,	Natural,													8

Somerset Fuel Co.																
[illegible],	Drift,	Non-gas,	Fan,	10	3	2.5	50	1	Brazil,	Electricity,	2	28,000	7,900	28,300	17
Southern Coal Co.																
Southern No. 1,*	Drift,	Non-gas,	Fan,	12	3.67	2.33			Brazil,	Steam,					
Southern No. 2,*															
Franklin Coke Co.																
Leon,‡	Drift,	Non-gas,													
Percy Mining Co.																
Percy,*	Slope,	Non-gas,	Fan,	12	4	2									

*Idle.
‡In course of construction.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches: Thickest	Height of seam in inches: Thinnest	Approximate number of tons produced by machines
Pittsburg Coal Co.,	Colonial No. 1,	Slope,	Gaseous,	6	Electricity,	Pittsburg,	90	96	84	225,654
	Colonial No. 3,	Shaft,	Gaseous,	6	Compressed Air,	Pittsburg,	90	96	84	32,032
	Colonial No. 4,	Shaft,	Gaseous,	6	Electricity,	Pittsburg,	90	96	84	164,565
Totals,				18						422,251
Pittsburg and Erie Coal Co.	Sumner No. 2,	Slope,	Gaseous,	8	Electricity,	Pittsburg,	86	88	82	300,879
H. C. Frick Coke Co.,	Phillips,	Shaft,	Gaseous,	16	Compressed Air,	Connellsville,	102	108	96	206,130
W. J. Rainey,	Mt. Braddock,	Slope,	Gaseous,	4	Compressed Air,	Connellsville,	103	110	96	91,500
	Royal,	Shaft,	Gaseous,	7	Compressed Air,	Pittsburg,	106	114	98	110,191
Totals,				11						201,691
Lincoln Coal and Coke Co.,	Lincoln No. 1,	Slope,	Gaseous,	4	Compressed Air,	Pittsburg,	106	114	98	181,000
Dunbar Furnace Co.,	Furnace No. 1,	Slope,	Gaseous,	12	Compressed Air,	Upper Freeport,	50	60	48	152,738

Listonburg Coal Mining Co.	Miller,	Slope,	Non-gas.	2	Compressed Air,	C. Prime,	46	48	40	13,244
Elk Lick Coal Co.,	Beachley,	Drift,	Non-gas.	6	Compressed Air,	C. Prime,	42	45	39	11,450
Atlas Coke Co.,	Lafayette,	Slope,	Gaseous,	2	Compressed Air,	Pittsburg,	106	114	98	5,075
Grand totals,				79						1,494,458

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Adelaide,	Fayette,	W. H. Clingerman,	Scottdale,	Herbert Boyd,	Adelaide,	P. and L. E.
Bitner,				A. G. Page,	Dunbar, R. F. D. No. 32.	P. V. and C.
Davidson,				R. C. Beerbower,	Connellsville,	S. W. P. and B. and O.
Juniata,				J. A. Childs,	Dunbar, R. F. D. No. 32.	B. and O.
Trotter,				P. J. Tormay,	Connellsville,	Pennsylvania
Leisenring No. 1,				C. B. Franks,	Leisenring,	B. and O. and Pennsylvania
Leisenring No. 2,				R. K. Warnock,	West Leisenring,	P. V. and C.
Leisenring No. 3,				A. R. Miller,	Dunbar, R. F. D. No. 32.	Pennsylvania
Lemont Nos. 1 and 2,				Benton Boyd,	Lemont Furnace,	B. and O.
Phillips,				W. J. Culleton,	Uniontown, R. F. D. No. 1.	P. V. and C.
Youngstown,				C. K. Pittman,	Lemont Furnace,	B. and O. and Pennsylvania
W. J. Rainey						
Fort Hill,	Fayette,	T. J. Mitchell,	Uniontown,	J. B. Henderson,	Vanderbilt,	P. and L. E. and B. and O.
Paul,				J. B. Henderson,	Vanderbilt,	P. and L. E. and B. and O.
Mt. Braddock,				W. J. Callaghan,	Mt. Braddock,	B. and O. and Pennsylvania
Elm Grove,				S. M. Williams,	Dunbar, R. F. D. No. 32.	B. and O.
Royal,				M. McPartland,	Smock,	P. V. and C.
Pittsburg Coal Co.						
Colonial Nos. 1 and 2,*	Fayette,	William Goodfellow,	Smock,	William Goodfellow,	Smock,	P. V. and C.
Colonial No. 3,				Edwin Williams,	Grindstone,	P. V. and C.
Colonial No. 4,				J. T. Colborn,	Grindstone,	P. V. and C.

*Idle.

Lincoln Coal and Coke Co. Lincoln Nos. 1 and 2,	Fayette,	E. L. Stoner,	Scottdale,	D. R. DePriest,	Waltersburg,	P. V. and C.
Pittsburg and Erie Coal Co. Sumner Nos. 1* and 2,	Fayette,	W. A. Luce,	Pittsburg,	J. M. Crawford,	Braznell,	P. V. and C.
Dunbar Furnace Co. Furnace Nos. 1 and 2,	Fayette,	Stuart B. Marshall,	Dunbar,	J. W. Greaves,	Dunbar,	New Haven and Dunbar
Oliver and Snyder Steel Co. Oliver No. 3,	Fayette,	Fred. C. Keighley,	Oliver,	J. H. Lane,	Oliver,	P. V. and C.
Brown and Cochran Nellie,	Fayette,	J. S. Laughrey,	Dawson,	J. S. Laughrey,	Dawson,	P. and L. E.
Atlas Coke Co. Lafayette,	Fayette,	W. D. McKeefry,	Leetonia, Ohio,	James Henderson,	Uniontown,	P. V. and C.
Waltersburg Coke Co. Edna No. 2,	Fayette,	W. A. Stone,	Uniontown,	O. P. Stone,	Waltersburg,	P. V. and C.
Cambria Steel Co. Atlas, Mahoning,	Fayette,	Marshall G. Moore,	Johnstown,	J. J. Stoker,	Dunbar,	Pennsylvania
James Cochran Sons Co. Clarissa,	Fayette,	N. A. Rist,	Dawson,	N. A. Rist,	Dawson,	P. and L. E.
Hogsett Coal and Coke Co. Hogsett,	Fayette,	McClelland Leonard,	Uniontown,	J. B. Maloy,	Uniontown,	S. W. P.
Sunshine Coal and Coke Co. Chester,**	Fayette,	Francis J. Rocks,	Uniontown,	J. B. Cunningham,	Uniontown, R. F. D. No. 1.	P. V. and C.
Listonburg Coal Mining Co. Liston,* Miller,	Somerset,	R. A. Stoughton,	Addison,	R. A. Stoughton,	Addison,	B. and O.
Smith-Meyers and Co., Inc. Anspach,	Somerset,	F. R. Anspach,	Confluence,	H. B. Tissue,	Confluence,	B. and O.
Genuine Connellsville Coke Co. Park Hill,	Fayette,	M. F. Pickard,	Connellsville,	F. H. Boyd,	Waltersburg,	P. V. and C.
Lang Coal and Sand Co. Basil,	Fayette,	Robert Lang,	Connellsville,	Robert Lang,	Connellsville,	Pennsylvania

*Idle.
**Operated by E. A. Humphries Coke Co. until October.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Elk Lick Coal Co. Beachley,	Somerset,	E. M. Beachley,	Meyersdale,	C. G. Masters,	Beachley,	B. and O.
Huff Coal Co. Maude,	Somerset,	I. T. Huff,	Humbert,	I. T. Huff,	Humbert,	Ursina and North Fork
Browning Coke Co. Browning,	Fayette,	A. Q. Davis,	Uniontown,	A. Q. Davis,	Uniontown,	P. V. and C.
Marietta-Ganier Coke Co. Junction,	Fayette,	Wade Marietta,	Connellsville,	William Grist,	Vanderbilt,	P. and L. E.
Somerset Fuel Co. Beals,	Somerset,			S. A. Clemence,	Listonburg,	B. and O.
Southern Coal Co. Southern Nos. 1 and 2,*	Somerset,	B. H. Read,	Baltimore, Md.,			B. and O.
United Fire Brick Co. Ferguson,†	Fayette,			E. McCollough,	Uniontown,	B. and O.
Franklin Coke Co. Leon,‡	Fayette,	Christian Echard,	Uniontown,	Christian Echard,	Uniontown,	P. V. and C.
Percy Mining Co. Percy,*	Fayette,	George C. Marshall,	Percy,	P. J. Mahony,	Percy,	B. and O.

*Idle.
†Not under the law.
‡In course of construction.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
H. C. Frick Coke Co.																
Adelaide,	Fayette,	.....	5,214	2,568	272,049	279,831	181,366	375	286	276	3	2	.....	25	2,050	35
Bitner,	Fayette,	946	1,251	1,920	270,213	274,330	180,142	300	287	253	2	.....	.....	.....	14,000	25
Davidson,	Fayette,	10,307	7,674	2,896	228,084	248,961	152,056	333	287	279	2	3	.....	.....	14,053	31
Juniata,	Fayette,	.....	3,805	2,063	220,548	226,416	147,032	250	286	240	.....	2	.....	.....	22,075	37
Trotter,	Fayette,	.....	9,932	4,106	406,331	420,369	270,887	464	289	429	1	3	.....	200	3,000	52
Leisenring No. 1,	Fayette,	7,813	14,441	3,509	424,539	450,302	283,026	500	289	424	.....	1	.....	300	6,650	54
Leisenring No. 2,	Fayette,	.....	10,464	3,444	417,767	431,675	278,511	500	289	414	.....	6	.....	.....	1,465	55
Leisenring No. 3,	Fayette,	.....	20,056	2,580	392,925	415,561	261,950	504	291	437	1	5	.....	.....	920	51
Lemont Nos. 1 and 2,	Fayette,	4,603	15,214	4,316	421,685	445,818	281,123	577	295	590	1	.....	.....	.....	1,560	58
Phillips,	Fayette,	.....	6,326	3,246	368,934	378,506	245,956	400	291	431	1	1	.....	.....	74,250	55
Youngstown,	Fayette,	11,726	5,573	2,304	204,900	224,503	136,600	241	292	232	.....	.....	.....	.....	3,150	30
Totals,		35,395	99,950	32,952	3,627,975	3,796,272	2,418,649	4,444	.....	4,005	11	23	.....	525	143,173	483
W. J. Rainey																
Fort Hill,	Fayette,	.....	1,072	.....	198,687	199,759	132,458	210	301	157	.....	1	.....	.....	.....	21
Paul,	Fayette,	.....	1,911	1,023	270,069	273,003	180,046	310	277	299	1	1	.....	.....	25,000	39
Mt. Braddock,	Fayette,	.....	11,419	5,323	257,782	274,524	171,855	370	305	351	.....	2	.....	.....	45,000	45
Elm Grove,	Fayette,	.....	1,819	1,124	214,467	217,410	142,978	214	302	188	.....	.....	.....	.....	10,000	21
Royal,	Fayette,	.....	5,806	2,370	102,014	110,190	71,410	187	305	173	.....	.....	.....	.....	10,000	37
Totals,		.....	22,027	9,840	1,043,019	1,074,886	698,747	1,291	.....	1,168	1	4	.....	.....	90,000	163

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Coal Co.																
Colonial No. 1,	Fayette,	.....	6,254	1,541	457,841	465,636	309,775	500	301	450	1	....	.....	1,200	63,800	56
Colonial No. 2,*		.....	.....	.....	.....	.....	.....	30	.....	.....	....	....	.....	.....	.....	.....
Colonial No. 3,		.....	2,782	142	29,108	32,032	19,619	156	121	150	....	....	.....	.....	.....	7
Colonial No. 4,		.....	3,579	919	202,492	206,990	135,265	300	245	230	2	5	.....	.....	10,100	27
Totals,		.....	12,615	2,602	689,441	704,658	464,659	986	.....	830	3	5	.....	1,200	73,900	90
Lincoln Coal and Coke Co.																
Lincoln Nos. 1 and 2,	Fayette,	.....	8,000	12,900	342,200	363,100	237,752	400	270	397	1	1	.....	.....	35,000	60
Pittsburg and Erie Coal Co.																
Sumner No. 2,	Fayette,	342,714	5,682	2,238	.....	350,634	.....	.....	247	207	1	4	1,500	800	9,600	18
Dunbar Furnace Co.																
Furnace No. 1,	Fayette,	265,759	10,362	8,579	.....	284,700	.....	.....	296	230	....	1	25,825	.....	8,625	58
Furnace No. 2,		29,556	.....	32,322	.....	61,878	.....	.....	307	58	1	1	10,165	.....	3,950	14
Totals,		295,315	10,362	40,901	.....	346,578	.....	.....	.....	288	1	2	35,990	.....	12,575	[illegible]
Oliver and Snyder Steel Co.																
Oliver No. 3,	Fayette,	.....	1,162	1,707	296,914	299,783	197,074	300	289	362	2	....	.....	.....	4,570	34
Brown and Cochran																
Nellie,	Fayette,	.....	1,523	1,500	237,856	240,879	158,571	330	287	245	1	....	1,600	.....	1,400	33

*Idle.

Atlas Coke Co. Lafayette,	Fayette,		4,454	2,124	192,108	198,686	158,726	220	311	224	1				10,000	32
Waltersburg Coke Co. Edna No. 2,	Fayette,		104	414	142,924	143,442	94,546	149	299	167					3,600	11
Cambria Steel Co. Atlas,	Fayette,		2,905	128	64,091	67,124	50,369	90	311	83				50	50	10
Mahoning,			2,131	128	44,922	47,181	34,041	208	234	79					100	13
Totals,			5,036	256	109,013	114,305	84,410	298		162				50	150	23
James Cochran Sons Co. Clarissa,	Fayette,	1,939		518	79,471	81,928	52,980	108	292	81	2				9,000	10
Hogsett Coal and Coke Co. Hogsett,	Fayette,	43,860	379	101		44,340			289	53	1			397	250	5
Sunshine Coal and Coke Co. Chester,	Fayette,		800	325	38,752	39,877	30,002	54	303	43					1,500	5
Listonburg Coal Mining Co. Miller,	Somerset,	39,252	480			39,732			238	74			19,200	300		7
Smith-Meyers and Co., Inc. Anspach,	Somerset,	35,000	1,100	550		36,650			275	47			10,000	300		
Genuine Connellsville Coke Co. Park Hill,	Fayette,			60	21,588	21,648	14,047	58	118	55					1,250	5
Lang Coal and Sand Co. Basil,	Fayette,	8,028	650	8,900		17,578			292	10			1,250	25		1
Elk Lick Coal Co. Beachley,	Somerset,	12,350	900	123		13,373			212	40			3,280	1,200		5
Huff Coal Co. Maude,	Somerset,	5,067	489	291		5,847			131	30			300			
Browning Coke Co. Browning,	Fayette,			90	5,700	5,790	4,079	20	109	15				1,400	300	1
Marietta-Ganier Coke Co. Junction,	Fayette,		80		4,900	4,980	1,630	20	94	16			1,200			1
Somerset Fuel Co. Beals,	Somerset,	1,200	60	70		1,330			17	20			108			2
Grand totals,		820,120	175,853	118,462	6,831,861	7,946,296	4,615,872	8,678		8,539	25	39	74,428	6,287	396,268	1,061

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
H. C. Frick Coke Co.,	Fayette,	6	270	92	11,535	11,805	16	9	2	73	8,126	31	21,450	9,435	10	21
W. J. Rainey,	Fayette,			40	4,565	4,565	1			20	4,000	12	5,200	2,800	8	11
Pittsburg Coal Co.,	Fayette,			13	2,550	2,550			7	16	3,855	4	785	685	7	1
Lincoln Coal and Coke Co.,	Fayette,	6	600	1	400	1,000	2	1		9	1,000	2	700	450		3
Pittsburg and Erie Coal Co.,	Fayette,			3	375	375			2	3	480	3	485	100	2	
Dunbar Furnace Co.,	Fayette,	6	450	2	600	1,050				6	275	5	520	208		3
Oliver and Snyder Steel Co.,	Fayette,			8	640	640			2	5	531	1	661	130	1	1
Brown and Cochran,	Fayette,			3	120	120	3		1			1	200	120	1	
Atlas Coke Co.,	Fayette,			6	550	550			2	4	572	3	1,400	600	2	2
Waltersburg Coke Co.,	Fayette,			2	100	100						1	50	30	1	
Cambria Steel Co.,	Fayette,			8	440	440				7	385					1
Hogsett Coal and Coke Co.,	Fayette,			1	75	75				1	100	2	20	10		
Sunshine Coal and Coke Co.,	Fayette,	1	80			80				2	160					
Listonburg Coal Mining Co.,	Somerset,			2	225	225				1	35	2	175	135		1
Smith-Meyers and Co., Inc.,	Somerset,			2	250	250			1	2	140				1	
Genuine Connellsville Coke Co.,	Fayette,			1	80	80				1	18					
Lang Coal and Sand Co.,	Fayette,			1	40	40	1			1	30	2	218	190		
Elk Lick Coal Co.,	Somerset,	1	150			150				2	60					1
Huff Coal Co.,	Somerset,	3	300			300			1						1	
Marietta-Ganier Coke Co.,	Fayette,			1	70	70						1	70	50		
Somerset Fuel Co.,	Somerset,			1	180	180			1	1	137				1	
Totals,		23	1,850	187	22,795	24,645	23	10	19	163	19,904	70	31,934	14,943	35	45

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co.,	Fayette,	12	9	36	1,656	13	62	13	172	57	328	165	2,523	11	26	68	88	934	17	338	1,482	4,005
W. J. Rainey,	Fayette,	5	----	8	426	11	----	11	73	6	62	52	654	4	7	20	40	281	27	135	514	1,168
Pittsburg Coal Co.,	Fayette,	3	2	6	165	17	139	17	47	14	48	6	464	3	5	15	20	257	7	59	366	830
Lincoln Coal and Coke Co.,	Fayette,	2	1	2	144	8	----	8	22	----	34	----	221	1	3	6	10	139	3	14	176	397
Pittsburg and Erie Coal Co.	Fayette,	1	----	3	40	8	90	8	13	4	5	----	172	1	1	4	3	----	2	24	35	207
Dunbar Furnace Co.,	Fayette,	2	----	5	162	11	----	11	31	3	24	10	259	2	----	7	5	----	1	14	29	288
Oliver and Snyder Steel Co.	Fayette,	1	----	2	165	----	----	----	21	3	47	----	239	1	3	5	9	54	1	50	123	362
Brown and Cochran,	Fayette,	1	----	1	110	----	----	----	12	4	4	9	141	1	1	3	3	94	2	----	104	245
Atlas Coke Co.,	Fayette,	1	----	2	94	----	----	----	12	1	13	6	129	1	4	4	3	80	1	2	95	224
Waltersburg Coke Co.,	Fayette,	1	----	1	80	----	----	----	9	----	6	9	106	1	1	3	1	43	1	11	61	167
Cambria Steel Co.,	Fayette,	2	1	2	51	----	----	----	8	----	26	2	92	1	----	4	7	51	1	6	70	162
James Cochran Sons Co.,	Fayette,	1	----	----	35	----	----	----	8	----	3	----	47	1	1	1	----	25	1	5	34	81
Hogsett Coal and Coke Co.	Fayette,	1	----	1	30	----	----	----	3	----	12	----	47	1	----	1	1	----	1	2	6	53
Sunshine Coal and Coke Co.	Fayette,	1	----	----	13	----	----	----	2	----	2	----	18	1	1	1	1	14	1	6	25	43
Listonburg Coal Mining Co.	Somerset,	1	1	----	46	2	10	----	6	1	2	----	69	1	----	1	1	----	----	2	5	74
Smith-Meyers and Co., Inc.	Somerset,	1	1	----	30	----	----	----	1	1	3	----	37	1	----	1	1	----	1	6	10	47
Genuine Connellsville Coke Co.	Fayette,	1	----	----	24	----	----	----	3	----	2	----	30	1	1	1	1	15	1	5	25	55
Lang Coal and Sand Co.,	Fayette,	----	----	----	6	----	----	----	1	----	----	----	7	1	----	----	1	----	----	1	3	10
Elk Lick Coal Co.,	Somerset,	1	----	----	22	4	----	----	2	1	4	1	35	1	1	1	1	----	----	1	5	40
Huff Coal Co.,	Somerset,	1	----	----	17	----	----	----	----	----	2	----	20	1	----	1	2	----	1	5	10	30
Browning Coke Co.,	Fayette,	----	----	----	7	----	----	----	1	----	----	----	8	1	----	----	----	6	----	----	7	15
Marietta-Ganier Coke Co.,	Fayette,	----	----	----	7	----	----	----	1	----	----	----	8	1	----	----	1	4	1	1	8	16
Somerset Fuel Co.,	Somerset,	1	----	----	12	----	----	----	1	----	3	----	17	1	----	1	1	----	----	----	3	20
Totals,		40	15	69	3,342	74	301	68	449	95	630	260	5,343	39	55	148	200	1,997	70	687	3,196	8,539

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Fayette,	22	20	23	21	22	25	26	26	26	26	26	26	289
W. J. Rainey,	Fayette,	26	22	25	22	23	25	25	26	26	26	26	26	298
Pittsburg Coal Co.,	Fayette,	13	11	12	14	14	14	17	24	25	26	26	26	222
Lincoln Coal and Coke Co.,	Fayette,	19	16	19	20	19	24	26	26	23	26	26	26	270
Pittsburg and Erie Coal Co.,	Fayette,	19	15	18	23	25	25	22	24	19	18	22	17	247
Dunbar Furnace Co.,	Fayette,	26	24	25	26	23	26	26	23	26	26	25	26	302
Oliver and Snyder Steel Co.,	Fayette,	26	24	18	20	19	26	26	26	26	26	26	26	289
Brown and Cochran,	Fayette,	26	24	24	18	17	22	26	26	26	26	26	26	287
Atlas Coke Co.,	Fayette,	26	24	27	26	26	26	26	26	26	26	26	26	311
Waltersburg Coke Co.,	Fayette,	23	21	27	24	23	26	25	27	24	27	26	26	299
Cambria Steel Co.,	Fayette,	13	12	14	26	26	26	26	26	26	26	26	26	273
James Cochran Sons Co.,	Fayette,	18	24	27	23	22	24	24	26	26	26	26	26	292
Hogsett Coal and Coke Co.,	Fayette,	24	18	26	24	21	25	25	24	26	26	25	25	289
Sunshine Coal and Coke Co.,	Fayette,	24	23	26	25	26	24	25	26	26	26	26	26	303
Listonburg Coal Mining Co.,	Somerset,	22	20	19	19	21	20	20	19	20	19	20	19	238
Smith-Meyers and Co., Inc.,	Somerset,	25	24	26	25	12	13	25	25	25	25	25	25	275
Genuine Connellsville Coke Co.,	Fayette,	4							12	26	24	26	26	118
Lang Coal and Sand Co.,	Fayette,	25	22	25	24	24	24	25	25	24	25	24	25	292
Elk Lick Coal Co.,	Somerset,	19	18	17	22	16	17	18	16	18	17	16	18	212
Huff Coal Co.,	Somerset,							25	16	22	23	23	22	131
Browning Coke Co.,	Fayette,	10								21	26	26	26	109
Marietta-Ganier Coke Co.,	Fayette,	26									16	26	26	94
Somerset Fuel Co.,	Somerset,											6	11	17

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 20	Patrick McGuire,	Irish,	Driver,	24	M.	1		Colonial No. 4,		Fatally injured by being caught between mine cars on entry.
Feb. 6	Mike Verable,	Slavonian,	Driver,	25	M.	1		Paul,		Instantly killed. Supposed to have fallen off car on entry and run over.
16	Lesto Kotona,	Magyar,	Miner,	34	M.	1	2	Adelaide,		Killed by fall of roof while working on pillar stump.
17	John Malone,	American,	Elevator man,	24	M.	1	2	Colonial No. 4,		Fatally injured while trying to oil machinery in motion, contrary to orders. Outside.
March 3	George Shirrosky,	Slavonian,	Miner,	51	M.	*	5	Sumner No. 2,		Fatally injured by fall of coal at face of room while watching his fellow workman pull the coal down.
4	Andrew Kolick,	Polish,	Miner,	22	S.			Trotter,		Killed by fall of roof in pillar work while preparing to draw props. The gob slid knocking out posts.
June 17	Charles McGurke,	Irish,	Driver,	17	S.			Phillips,	Fayette,	Fatally injured by being squeezed between car and rib on narrow side of entry.
July 26	Edward Hardin,	American,	Driver,	30	S.			Lemont No. 1,		Instantly killed between car and rib on entry when car left the track.
Aug. 3	Mike Bikowski,	Polish,	Company-man	26	S.			Adelaide,		Instantly killed by fall of slate on entry. He neglected to go to a place of safety.
18	John Meson,	Slavonian,	Miner,	25	S.			Lincoln No. 1,		Instantly killed by fall of roof while drawing posts in pillar work.
31	John Franoz,	Polish,	Miner,	29	M.	1	1	Oliver No. 3,		Instantly killed by fall of slate when post was knocked out in pillar work.
Sept. 3	John Mitka,	Polish,	Miner,	37	M.	1	6	Davidson,		Fatally injured by fall of roof while drawing pillars.
28	Thomas Hutchenson,	Scotch,	Timberman,	37	M.	1	4	Colonial No. 1,		Instantly killed by fall of slate on entry while trying to secure it with cross-timbers.
21	Adolph Rottler,	German,	Miner,	51	M.	1	5	Davidson,		Fatally injured by fall of slate on haulage road.

*Widower.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Oct. 9	John Stelzura,	Polish,	Miner,	22	S.			Lafayette,		Instantly killed by fall of roof while cutting stump in pillar work.
11	James McConaghy,	Irish,	Company-man	32	M.	1		Hogsett,		Fatally injured by flying piece of slate from blast. He neglected to go to a safe place.
11	John Hodinko,	Slavonian,	Miner,	40	M.	1	4	Clarissa,		Fatally injured by fall of roof in pillar work.
11	Andy Borza,	Slavonian,	Miner,	35	M.	1				Fatally injured by fall of roof in pillar work.
18	John Mishnow,	Polish,	Miner,	45	M.	1	5	Leisenring No. 3,		Instantly killed by fall of slate in pillar work.
25	Charles Stagon,	Austrian,	Miner,	20	S.			Nellie,	Fayette,	Instantly killed by fall of roof in working place.
Nov. 8	Henry Mongora,	Italian,	Boss driver,	22	S.			Bitner,		Fatally injured about 100 yards from pit mouth by trip of cars he tried to board while in rapid motion.
16	Martin B. Lalley,	Irish,	Boss driver,	30	M.	1	1	Oliver No. 3,		Instantly killed by being run over by larry. Outside.
16	Steve Ulman,	Magyar,	Miner,	33	M.	1	3	Adelaide,		Instantly killed by fall of roof in pillar work.
16	Roy Kough,	American,	Motorman,	20	S.			Bitner,		Hand badly squeezed, resulting in death by tetanus. Outside.
Dec. 13	George Frye,	English,	Company-man	26	M.	1	1	Furnace No. 2,		Instantly killed by fall of slate on entry while trimming side to fit cross-timbers.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 5	James Paul,	Italian,	Miner,	30	M.	Juniata,		Squeezed between car and rib on entry.
19	John Keyock,	Slavonian,	Miner,	38	M.	Trotter,		Leg broken by fall of slate at face of room while cleaning up fall.
22	Steve Covalage,	Slavonian,	Driver,	28	M.	Colonial No. 4,		Arm bruised and cut between car and rib on entry.
26	Thomas Cassidy,	Irish,	Driver,	29	M.	Leisenring No. 3,		Hand caught by fall of slate at face of room.
Feb. 4	Chas. Bocheek,	Slavonian,	Loader,	22	S.	Sumner No. 2,		Scalp cut by piece of falling slate at face of room.
9	James Beam,	American,	Driver,	28	M.	Sumner No. 2,		Nose fractured and forehead cut by piece of falling slate in room.
9	John Demetar,	Slavonian,	Miner,	24	S.	Colonial No. 4,		Severely burned by dynamite that exploded while he was trying to thaw it.
13	Nick Sterney,	Slavoinan,	Air locomotive brakeman.	18	S.	Leisenring No. 1,		Leg broken by being caught between cars and the narrow side of entry.
17	John Cornock,	American,	Door boy,	17	S.	Paul,		Collar bone fractured and face cut in attempting to board trip of moving cars on entry.
26	Frank Glass,	Polish,	Miner,	50	M.	Adelaide,	Fayette,	Legs and back bruised by fall of slate in pillar work.
March 9	Carl Tongrete,	Italian,	Miner,	36	M.	Adelaide,		Leg broken by piece of falling slate in pillar work.
12	Stanley Cominsky,	German,	Driver,	19	S.	Leisenring No. 3,		Shoulder bruised and scalp injured by trip on entry that got beyond control.
April 21	Thomas Bonyitautch,	Horwat,	Miner,	28	M.	Leisenring No. 3,		Thigh fractured by fall of roof in pillar work.
25	Clayton P. Franks,	American,	Driver,	26	S.	Mt. Braddock,		Leg fractured and foot crushed between cars on entry.
May 10	John Rutherford,	English,	Driver,	26	S.	Furnace No. 1,		Bruised on back and hips by fall of slate near face of entry.
13	John Bilowiskey,	Slavonian,	Tippleman,	50	M.	Leisenring No. 2,		Head injured while attempting to grease transfer truck in motion. Outside.
June 2	Nick Buzok,	Slavonian,	Miner,	27	M.	Lincoln No. 1,		Compound fracture of leg by fall of roof in pillar work.

TABLE 5.—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
June	5	John Coharchic,	Slavonian,	Shot-firer,	26	M.	Colonial No. 4,		Two toes smashed by car while taking car off cage at bottom of shaft.
	7	Joe Bottyan,	Magyar,	Miner,	40	M.	Leisenring No. 2,		Skull fractured by piece of falling slate in pillar work.
	8	Joe Chanata,	Polish,	Miner,	40	S.	Juniata,		Compound fracture of leg by post slipping while putting car on track on entry.
	9	William Graushi,	Slavonian,	Air locomotive brakeman.	24	M.	Leisenring No. 3,		Both arms and collar bone fractured by falling in front of locomotive on entry.
	10	John Bailey,	Irish,	Rib-boss,	40	S.	Leisenring No. 2,		Ankle and back sprained by small fall of slate on entry.
	11	Edward Shives,	American,	Driver,	42	M.	Trotter,		Leg broken by post slipping while lifting car.
	14	Frank Minor,	American,	Driver,	22	S.	Colonial No. 4,		Hips squeezed on narrow side of entry.
	16	George Lowden,	English,	Company-man,	24	S.	Leisenring No. 2,		Collar bone fractured by being thrown against rib when car left track on entry.
	16	William Campbell,	Scotch,	Miner,	27	M.	Sumner No. 2,	Fayette,	Hip joint dislocated by fall of slate in pillar work.
	21	Steve Kilsosh,	Slavonian,	Miner,	25	M.	Fort Hill,		Leg broken by fall of slate while drawing posts in pillar work.
July	10	Frank Feranga,	Italian,	Miner,	40	M.	Mt. Braddock,		Burned by shot. Had two shots placed and went back before second shot went off.
	20	John Lerch,	Austrian,	Miner,	45	M.	Leisenring No. 2,		Leg broken by fall of slate in pillar work.
Aug.	12	Andy Steneslack,	Slavonian,	Company-man,	35	M.	Colonial No. 4,		Cut on head and face by fall of roof on entry.
	20	John Barcey,	Hungarian,	Loader,	38	M.	Sumner No. 2,		Leg broken by fall of draw slate at face of room.
Sept.	21	Frank Spitler,	German,	Miner,	55	M.	Davidson,		Vertebra fractured by fall of slate on haulage entry.
	21	Frank Kohochick,	German,	Miner,	36	M.	Davidson,		Injured by fall of slate on haulage entry.

Sept.	25	Mike Mehalick,	Slavonian,	Miner,	28	M.	Trotter,	Fayette,	Squeezed and scalp injured by being caught between car and rib in pillar work.
Oct.	2	Oliver M. Durst,	American,	Company-man,	52	M.	Davidson,		Ankle fractured by run-away cars on haulage entry.
	13	Andy Brinko,	Slavonian,	Company-man,	34	M.	Leisenring No. 3.		Arm broken between car and rib on entry.
Nov.	12	George Lowden,	English,	Driver,	23	S.	Leisenring No. 2,		Hip dislocated by being caught between car and rib on entry.
	13	Preston Brooks,	American,	Driver,	27	M.	Furnace No. 2.		Foot smashed, necessitating amputation, between cars on entry.
Dec.	8	George Taylor,	American,	Driver,	20	S.	Phillips,		Squeezed and internally injured between car and mule at lay-off when chain caught in switch.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Adelaide, Bitner, Juniata, Trotter, Leisenring Nos. 1, 2, 3, Lemont No. 1 and Phillips.—In good condition.

Davidson, Lemont No. 2 and Youngstown.—Ventilation defective in part of each mine. Drainage also defective in part of Davidson. All the mines are worked with locked safety lamps, except Bitner, which is non-gaseous. Competent men are employed as "fall bosses" to look after the safety of miners engaged in drawing of pillars.

Effective watering systems are provided, consisting of water-pipes and water cars, and are used to keep the roadways damp. None but permissible explosives are used in these mines.

W. J. RAINEY

Fort Hill, Paul, Elm Grove and Royal.—In good condition.

Mt. Braddock.—Ventilation was poor at face of workings at the time of my first inspection, but it was very much improved during the latter part of the year.

Royal and Paul.—In these mines the roadways are dampened by use of water-cars, and the mines are worked with locked safety lamps exclusively, except the drift section of Fort Hill, which is non-gaseous and is ventilated by a separate fan. None but permissible explosives are used at these mines.

PITTSBURG COAL COMPANY

Colonial No. 1.—In good condition. Water-cars are used to keep the roadways damp.

Colonial No. 2.—Idle the entire year.

Colonial No. 3.—In good condition. Locked safety lamps are used exclusively.

Colonial No. 4.—In good condition. Mixed lights are used in this mine. Water-car is used to dampen the roadways.

These mines use permissible explosives exclusively.

LINCOLN COAL AND COKE COMPANY

Lincoln Nos. 1 and 2.—In very good condition. No. 1 mine is worked exclusively with locked safety lamps. An effective watering system is used to dampen the roadways. Permissible explosives are used exclusively in these mines.

PITTSBURG AND ERIE COAL COMPANY

Sumner No. 1.—Idle the entire year.

Sumner No. 2.—Ventilation good, but weak in some places at the working face, due to poorly constructed stoppings and excessive use of canvas brattice for guiding and directing the air currents. Roads are kept damp by the use of water-car. Permissible explosives are used exclusively in this mine.

DUNBAR FURNACE COMPANY

Furnace Nos. 1 and 2.—In excellent condition in regard to ventilation and drainage. Safety lamps are used exclusively in No. 1 mine. These mines adopted the use of permissible explosives exclusively during the latter part of the year.

OLIVER AND SNYDER STEEL COMPANY

Oliver No. 3.—Ventilation good, but not conducted to the working faces in parts of the mine. Drainage very good. Locked safety lamps and permissible explosives are used exclusively. Roadways are kept damp by use of water-car.

BROWN AND COCHRAN

Nellie.—In excellent condition. Permissible explosives used exclusively.

ATLAS COKE COMPANY

Lafayette.—In excellent condition. Permissible explosives and locked safety lamps are used exclusively. Water-cars are used to dampen the roadways.

WALTERSBURG COKE COMPANY

Edna No. 2.—In good condition. Locked safety lamps and permissible explosives are used exclusively. An effective sprinkling system is being installed to dampen the mine, consisting of pipe-lines and sprinkling hose.

CAMBRIA STEEL COMPANY

Atlas and Mahoning.—In good condition. Both mines are worked with locked safety lamps exclusively.

JAMES COCHRAN SONS COMPANY

Clarissa.—In good condition. Permissible explosives are used exclusively.

HOGSETT COAL AND COKE COMPANY

Hogsett.—In good condition. Locked safety lamps only are used.

SUNSHINE COAL AND COKE COMPANY

Chester.—In good condition. Permissible explosives are used exclusively.

LISTONBURG COAL MINING COMPANY

Liston.—Idle during entire year.
Miller.—Ventilation good; drainage defective in part of mine.

SMITH-MEYERS AND COMPANY, INCORPORATED

Anspach.—In excellent condition throughout.

GENUINE CONNELLSVILLE COKE COMPANY

Park Hill.—In good condition. Permissible explosives used exclusively.

LANG COAL AND SAND COMPANY

Basil.—In fair condition. Did not come under the law.

ELK LICK COAL COMPANY

Beachley.—Ventilation and drainage were not satisfactory at time of inspection. I am informed that conditions have been improved since then.

HUFF COAL COMPANY

Maude.—A new mine not yet inspected.

BROWNING COKE COMPANY

Browning.—In fair condition. Did not come under the law.

MARIETTA-GANIER COKE COMPANY

Junction.—In fair condition. Did not come under the law.

SOMERSET FUEL COMPANY

Beals.—In fair condition. Worked but a few days during the year.

SOUTHERN COAL COMPANY

Southern Nos. 1 and 2.—Idle.

UNITED FIRE BRICK COMPANY

Ferguson.—Ventilation very weak. Did not come under the law.

FRANKLIN COKE COMPANY

Leon.—In course of construction.

PERCY MINING COMPANY

Percy.—Idle.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Davidson.—Built sixty-five permanent stoppings, two permanent overcasts, an addition to lamp house and installed one 15 K. W. 220 volt electric light plant.

Juniata.—Built thirty permanent overcasts.

Trotter.—Built one hundred and forty-eight permanent stoppings and twelve permanent overcasts; installed one duplex air compressor for mine pumps.

Leisenring No. 1.—Built twenty permanent stoppings and two overcasts. One pump room, built of ruble masonry and steel I beams, in which was placed one Jeanesville duplex pump, 22 x 12 x 36, with a capacity of 1,000 gallons per minute. An underground stable was built of rubble masonry laid in cement, the top being constructed of steel I beams on which is laid reinforced concrete slabs four inches, and the floor being paved with hard burned red brick laid on edge; mangers, stall, troughs and necessary rooms attached are constructed of incombustible material, making an excellent underground stable,accommodating forty head of stock. Installed one Laidlow-Dunn-Gordon four-stage high pressure air compressor with a capacity of 1,000 cubic feet per minute. Six boilers, of 150 horse-power each, installed.

Leisenring No. 2.—Built eleven brick stoppings and one overcast.

Leisenring No. 3.—New manway to southwest and northwest sides of mine constructed; one overcast built.

Lemont No. 1.—Built twenty-four brick stoppings and three overcasts. Installed tailrope haulage, with necessary engine, etc. Sunk new shaft, 14 x 17 feet and 465 feet deep, at face of workings for ventilation. New pump room constructed, in which is installed one Yough pump, 30 x 12 x 36.

Lemont No. 2.—Built twenty brick stoppings and four overcasts.

Phillips.—Installed one Laidlaw-Dunn-Gordon four-stage cross-compound high pressure air compressor; one Ingersoll-Rand two-stage compound low pressure air compressor; two 12-ton 9 x 14 simple, H. K. Porter Company, air locomotives; four Sullivan and one Ingersoll coal mining machines of the puncher type; one hundred all steel mine cars. Built thirteen permanent stoppings and four overcasts. Built and equipped one electrical repair shop and storage room.

Youngstown.—Built forty-six permanent stoppings.

W. J. RAINEY

Mt. Braddock.—Built thirty-two permanent stoppings. Erected forty rectangular coke ovens with machinery to draw, level and load coke.

Elm Grove.—Built fifty-seven permanent stoppings from fan to face between main inlet and return.

PITTSBURG COAL COMPANY

Colonial No. 3.—Erected five permanent stoppings.

Colonial No. 4.—Built twenty-four permanent stoppings and two overcasts.

LINCOLN COAL AND COKE COMPANY

Lincoln No. 1.—Built thirty-four permanent stoppings and two overcasts. Installed one ten-ton compressed air locomotive.

PITTSBURG AND ERIE COAL COMPANY

Sumner No. 2.—Built eleven permanent stoppings and three overcasts.

DUNBAR FURNACE COMPANY

Furnace No. 1.—One overcast and twenty-one permanent stoppings built. Installed telephone system throughout the mine, connected with tipple and offices. Outside: Two 300 horse-power boilers installed, and a concrete storage room built for explosives.

Furnace No. 2.—Twenty permanent stoppings built, and tipple covering three hundred feet.

OLIVER AND SNYDER STEEL COMPANY

Oliver No. 3.—Built fifteen permanent stoppings and one overcast; also one four-room dwelling house.

ATLAS COKE COMPANY

Lafayette.—Two permanent overcasts built.

WALTERSBURG COKE COMPANY

Edna No. 2.—Built ten permanent stoppings and one overcast.

HOGSETT COAL AND COKE COMPANY

Hogsett.—Ten permanent stoppings built.

SMITH-MEYERS AND COMPANY, INCORPORATED

Anspach.—Installed one General Electric Company generator and one electric motor for haulage, two boilers, 125 horse-power each, one ventilating fan and engine complete. Built fourteen dwelling houses.

HUFF COAL COMPANY

Maude.—A new operation with necessary buildings and equipment.

FRANKLIN COKE COMPANY

Leon.—A new coke operation, with necessary buildings and equipment.

Prosecutions for Violations of the Mining Laws

On January 7 information was made against John Smith, charging him with taking smoker's materials into Adelaide mine of the H. C. Frick Coke Company, which is worked exclusively with locked safety lamps. March 10, he plead guilty of the charge and was sentenced to pay a fine and costs, amounting to $35.23.

On February 18, information was made against John Vohesky, charging him with passing a danger signal in Colonial No. 1 mine, of the Pittsburg Coal Company. On June 16 he plead guilty of the charge and was sentenced to pay $25.00 fine and to undergo imprisonment in jail for thirty days.

On March 20, information was made against William Conners, fire boss, at Leisenring No. 3 mine, of the H. C. Frick Coke Company, charging him with failing to erect danger board at entrance to place that he found dangerous while making an examination. Case dismissed upon payment of costs by Conners, amounting to $16.62.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the First National Bank Building, Connellsville, April 6, 7, 8 and 9.

The Board of Examiners was composed of the following persons: T. D. Williams, Inspector; James J. Stoker, Superintendent, and John Boylan, Mine Foreman. There were forty-three applicants examined, twelve for certificates as Mine Foremen and thirty-one for certificates as Fire Bosses.

The following persons having passed a satisfactory examination were granted certificates as Mine Foremen:

First Grade

Patrick Flynn, Leisenring; Duncan Bennett, Connellsville; and D. R. DePriest, Waltersburg.

TENTH DISTRICT

CAMBRIA, BLAIR, INDIANA AND CLEARFIELD COUNTIES

Altoona, Pa., February 18, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the mining law, I herewith transmit my report for the Tenth Bituminous District for the year ending December 31, 1909.

The report contains the usual statistical matter, together with remarks on accidents, condition of mines and improvements.

Respectfully submitted,

JOSEPH WILLIAMS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	98
Number of mines in operation,	84
Number of tons of coal shipped to market,	4,625,622
Number of tons used at mines for steam and heat,	152,297
Number of tons sold to local trade and used by employes,	32,477
Number of tons used in the manufacture of coke,	587,576
Number of tons of coal produced,	5,397,972
Number of tons of coke produced,	374,047
Number of coke ovens,	1,331
Number of coke ovens in operation,	1,306
Number of tons of coal produced by pick mining,	3,486,492
Number of tons produced by compressed air machines,	757,848
Number of tons produced by electrical machines,	1,153,632
Number of persons employed inside of mines,	8,889
Number of persons employed outside, including coke workers,	1,197
Number of persons employed at manufacture of coke,	357
Number of fatal accidents inside of mines,	39
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	93
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	138,410
Number of persons employed per fatal accident inside,	228
Number of persons employed per fatal accident outside,	1,197
Number of persons employed per non-fatal accident inside,	96
Number of persons employed per non-fatal accident outside,	598
Number of wives made widows,	18
Number of children made orphans,	39
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	8
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	63
Number of electric motors used outside,	———
Number of fans in use,	58
Number of furnaces in use,	26
Number of gaseous mines in operation,	4
Number of non-gaseous mines in operation,	80
Number of new mines opened,	1
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal and Coke Company (T. H. Watkins, Receiver),	961,207
Commercial Coal Mining Company,	405,236
Portage Coal Mining Company,	268,962
Sonman Shaft Coal Company,	243,776
Shoemaker Coal Mining Company,	222,082
Tunnel Coaling Company,	199,425
Vinton Colliery Company,	197,865
NantYGlo Coal Mining Company,	168,673
Big Bend Coal Mining Company,	167,661
Altoona Coal and Coke Company,	162,625
Forge Coal Mining Company,	157,002
Taylor and McCoy Coal and Coke Company,	144,125
Cresson and Clearfield Coal and Coke Company,	140,583
W. H. Piper and Company,	126,018
Miller Coal Company,	121,695
George Pearce and Sons,	116,409
Lackawanna Coal and Coke Company,	116,409
Irvona Coal and Coke Company,	96,794
Leahey Coal Mining Company,	84,533
Lilly Coal Company,	72,784
Glen White Coal and Lumber Company,	71,931
Estep Brothers Coal Mining Company,	68,178
Baker Whitely Coal Company,	68,116
Penker Coal Company,	65,543
Princess Coal Mining Company,	63,100
Andersen Coal Mining Company,	59,006
Bens Creek-Sonman Coal Company,	58,710
A. Smith and Company,	57,969
Blain Run Coal Company,	56,800
J. Blair Kennerly,	54,344
Plymouth Coal Mining Company,	52,353
Cardiff Coal Company,	50,629
Springfield Coal Mining Company,	48,835
Lincoln Coal Company,	48,613
S. S. Hegarty's Sons,	48,374
Kiskiminetas Coal Company,	45,518
Standard Coal Company,	43,233
Aetna Coal Mining Company,	35,403
John A. Leap,	35,225
Bellfield Coal and Coke Company,	32,395
Puritan Coal Mining Company,	38,000
Harbison-Walker Refractories Company,	19,684
Bells Mill Coal Company,	16,733
E. W. Turley Company,	14,531

Federal Coal and Coke Company,	10,300
Bennington Coal Company, Incorporated,	9,718
Kelly and Flanagan,	8,016
J. E. Schmittle,	6,969
Big Four Coal Mining Company, Limited,	6,032
M. J. Leisenring Company,	5,888
Max Frick's Estate,	5,131
F. A. Garman,	4,093
Harris Collieries Company,	3,813
Munster Coal Company,	3,191
Ashville Coal and Coke Company,	3,000
Blacklick Mining Company,	2,209
Bradley and Reed,	2,025
Auld Run Coal and Coke Company,	500
Total,	5,397,972

Production by Counties

Cambria,	4,779,444
Blair,	209,557
Clearfield,	229,811
Indiana,	179,160
Total,	5,397,972

TABLE B.--Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pennsylvania Coal and Coke Co.,	4		4	9		9	240,302	106,801	1,380	322	1,702	345		153	
Commercial Coal Mining Co.,				9	1	10		45,026	657	67	724			73	67
Portage Coal Mining Co.,	1		1	3		3	268,962	89,654	382	32	414	382		127	
Sonman Shaft Coal Co.,	1		1	19		19	243,776	12,830	338	16	354	338		18	
Shoemaker Coal Mining Co.,	4		4	1		1	55,521	222,082	310	18	328	78		310	
Vinton Colliery Co.,				3		3		65,955	385	56	441			128	
Nant Y Glo Coal Mining Co.,	1		1	3		3	108,673	56,224	254	6	260	254		85	
Big Bend Coal Mining Co.,				8		8		20,958	181	19	200			23	
Altoona Coal and Coke Co.,				1	1	2		162,625	309	47	356			309	47
Forge Coal Mining Co.,				1		1		157,002	145	16	161			145	
Taylor and McCoy Coal and Coke Co.	1		1	3		3	144,125	48,041	209	70	279	209		70	
Cresson and Clearfield Coal and Coke Co.,	1		1	2		2	140,583	70,292	330	54	384	330		165	
W. H. Piper and Co.,				2		2		63,009	186	18	204			93	
Miller Coal Co.,	2		2	3		3	60,848	40,565	183	14	197	92		61	
George Pearce and Sons,	1		1				116,409		234	14	248	234			
Lackawanna Coal and Coke Co.,	21		21	12		12	5,543	9,701	142	55	197	7		12	
Irvona Coal and Coke Co.,				2		2		48,397	245	50	295			123	
Leahey Coal Mining Co.,				1		1		84,533	123	12	135			123	
Lilly Coal Co.,				1		1		72,784	133	14	147			133	
Glen White Coal and Lumber Co.,		1	1	1		1		71,931	133	37	170		37	133	
Princess Coal Mining Co.,				2		2		31,550	88	12	100			44	
Cardiff Coal Co.,				1		1		50,629	135	13	148			135	
Lincoln Coal Co.,				2		2		24,307	73	11	84			37	
Kiskiminetas Coal Co.,	1		1				45,518		67	3	70	67			
Standard Coal Co.,				1		1		43,233	64	4	68			64	

TABLE B—Continued

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Bellfield Coal and Coke Co.,				2		2		16,198	50	4	54			25	
Bennington Coal Company, Inc.,				1		1		9,718	18	3	21			18	
Max Frick's Estate,	1		1				5,131		22	2	24	22			
Miscellaneous Companies,									2,113	208	2,321				
Totals and averages for district,	39	1	40	93	2	95	138,410	58,043	8,889	1,197	10,086	228	1,197	96	598

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	3	1	1	----	----	----	----	----	----	----	1	6	15.39
Falls of slate,	----	----	----	----	----	----	----	1	----	----	----	----	1	2.56
Falls of roof,	----	1	----	1	2	----	----	----	----	2	----	----	6	15.38
Mine cars,	----	----	----	----	----	----	----	----	----	----	1	1	2	5.13
Explosions of gas and dust,	----	----	----	----	----	21	----	----	----	----	----	----	21	53.85
Suffocation by gas, etc.,	----	----	----	----	----	----	----	----	----	----	----	3	3	7.69
Totals,	----	4	1	2	2	21	----	1	----	2	1	5	39	100.00
Causes of Accidents Outside														
Miscellaneous,	----	----	----	----	----	----	----	----	1	----	----	----	1	100.00
Totals,	----	----	----	----	----	----	----	----	1	----	----	----	1	100.00
Grand totals inside and outside,	----	4	1	2	2	21	----	1	1	2	1	5	40	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	1	2	2	----	----	4	1	4	----	2	----	18	19.35
Falls of slate,	----	----	1	----	----	----	1	----	1	----	1	----	4	4.30
Falls of roof,	----	----	----	4	1	2	5	1	2	2	2	1	20	21.50
Mine cars,	2	2	3	2	4	2	4	3	2	1	6	2	33	35.48
Explosions of gas and dust,	----	----	----	----	----	12	----	----	----	----	----	----	12	12.90
Explosions of powder and dynamite,	----	----	----	1	----	----	----	----	----	----	----	----	1	1.08
Premature blasts,	----	----	----	----	----	1	----	1	----	----	----	----	2	2.15
Mules,	----	1	----	----	----	----	----	----	----	----	----	----	1	1.08
Machinery,	----	----	----	----	----	1	----	----	----	----	----	----	1	1.08
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	----	1	1	1.08
Totals,	4	4	6	9	5	18	14	6	9	3	11	4	93	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	1	----	----	----	1	2	100.00
Totals,	----	----	----	----	----	----	----	1	----	----	----	1	2	100.00
Grand totals inside and outside,	4	4	6	9	5	18	14	7	9	3	11	5	95	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	4	1	2	2	15	----	1	----	----	1	4	30
Drivers and runners,	----	----	----	----	----	1	----	----	----	----	----	1	2
Company men,	----	----	----	----	----	5	----	----	----	2	----	----	7
Totals,	----	4	1	2	2	21	----	1	----	2	1	5	39
Outside													
Miners,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	----	----	----	----	----	----	----	----	1	----	----	----	1
Grand totals inside and outside,	----	4	1	2	2	21	----	1	1	2	1	5	40

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Assistant mine foremen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Miners,	2	2	3	8	2	13	11	3	8	2	8	3	65
Machine runners,	----	----	----	----	----	----	----	----	1	----	----	----	1
Machine scrapers,	----	----	----	----	----	----	----	1	----	----	----	----	1
Drivers and runners,	----	2	3	1	3	1	2	1	----	1	----	1	15
Company men,	1	----	----	----	----	2	1	1	----	----	3	----	8
Stone masons,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	4	4	6	9	5	18	14	6	9	3	11	4	93
Outside													
Tipple men,	----	----	----	----	----	----	----	1	----	----	----	----	1
Trip runners,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	----	----	----	----	----	----	1	----	----	----	1	2
Grand totals inside and outside,	4	4	6	9	5	18	14	7	9	3	11	5	95

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	----	----	4	----	----	1	1	----	----	6
Scotch,	----	----	----	----	----	----	----	----	----	1	----	----	1
Irish,	----	----	----	----	1	----	----	----	----	----	----	----	1
German,	----	----	----	----	----	----	----	----	----	----	----	1	1
Polish,	----	----	----	1	1	1	----	----	----	----	----	3	6
Hungarian,	----	1	----	----	----	----	----	----	----	----	----	----	1
Italian,	----	----	----	1	----	10	----	----	----	----	----	----	11
Slavonian,	----	2	----	----	----	3	----	----	----	----	----	----	5
Lithuanian,	----	----	----	----	----	2	----	----	----	----	----	----	2
Austrian,	----	----	1	----	----	----	----	1	----	----	----	----	2
Russian,	----	1	----	----	----	1	----	----	----	----	----	----	2
Swedish,	----	----	----	----	----	----	----	----	----	----	1	1	2
Totals,	----	4	1	2	2	21	----	1	1	2	1	5	49

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2	2	1	2	5	2	1	1	----	2	1	20
English,	----	----	1	----	----	2	----	1	----	----	----	1	5
Irish,	----	----	----	----	----	----	----	----	----	----	2	----	2
German,	----	----	1	----	----	----	1	1	----	----	1	----	4
Polish,	----	----	1	5	1	2	5	1	3	----	----	----	18
Hungarian,	----	1	1	1	1	1	1	----	2	2	----	1	11
Italian,	----	----	----	1	----	7	3	----	1	----	3	----	15
Slavonian,	2	1	----	1	----	----	1	2	2	1	3	2	15
Lithuanian,	----	----	----	----	----	----	1	1	----	----	----	----	2
Austrian,	----	----	----	----	1	----	----	----	----	----	----	----	1
Russian,	1	----	----	----	----	----	----	----	----	----	----	----	1
Canadian,	----	----	----	----	----	1	----	----	----	----	----	----	1
Totals,	4	4	6	9	5	18	14	7	9	3	11	5	95

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)																
Pennsylvania No. 1,	Drift,	Non-gas.	Fan,	7	2	2.8	150	.3	Stine,	Electricity,		1	20,100	6,400	20,180	58
Pennsylvania No. 2,	Slope,	Non-gas.	Fan,	9	2.3	4.6	190	.8	Stine,	Electricity,			23,200	4,500	23,500	77
Pennsylvania Nos. 7 and 16,x	Drifts,	Gaseous,	Fans,	7 16	2 4.5	2.8 4	275 100	.5 1.5	Stine, Vulcan,	Electricity, Steam,		4	19,000 60,000	12,000 15,430	29,000 53,000	123
Pennsylvania No. 9,	Shaft,	Non-gas.	Fan,	10	4	3	125	1.	Brazil,	Steam,		6	62,600	22,500	62,900	135
Pennsylvania No. 10,	Slope,	Non-gas.	Fan,	20	5	5	115	3.5	Vulcan,	Steam,		5	86,000	27,980	86,400	315
Pennsylvania No. 14,	Drift,	Non-gas.	Fan,	12	5	3.5	120	1.5	Stine,	Steam,		2	53,000	35,000	53,200	170
Pennsylvania No. 19,	Slope,	Non-gas.	Fan,	13	4.2	3	45	.4	Brazil,	Steam,		1	15,300	8,100	15,500	87
Commercial Coal Mining Co.																
Commercial No. 2,	Drift,	Non-gas.	Natural,													9
Commercial No. 3,] x	Slope,		Fan,	10	3	2	188	2.8	Stevens,	Steam,		4	10,000	27,030	70,000	188
Commercial No. 4,]	Slope,		Fan,	8			220	1.	Robins n,	Electricity,		2	72,400	9,900	10,800	79
Commercial No. 5,	Slope,		Fan,	7	2	2.8	200	.5	Stine,	Electricity,		1	2,800	9,680	2,880	80
Portage Coal Mining Co.																
Portage No. 2,	Slope,	Non-gas.	Fan,	20	5	5	75	1.3	Pollock,	Steam,		5	85,200	32,740	85,500	260
Portage No. 3,*	Drift,		Furnace,								36					
Portage No. 4,	Shaft,		Fan,	20	5	5	45	.3	Pollock,	Steam,		1	30,000	5,500	30,100	36

*Idle. xVentilation of both mines connected.

Sonman Shaft Coal Co.																
Sonman Shaft,	Shaft,	Non-gas.	Fan,	16	4	4	90	.7	Brazil,	Steam,		7	73,790	34,440	74,000	276
Shoemaker Coal Mining Co.																
Wilmore No. 1,	Drift,	Non-gas.	Fan,	16	4	4	90	1.	Brazil,	Steam,		4	54,000	24,200	54,100	265
Tunnel Coaling Co.																
Tunnel No. 1,	Drift,	Non-gas.	Fans,	8	2.3	3	250	.4	Stine,	Electricity,		4	52,000	23,000	52,100	200
				7	2	2.8	200	.4	Stine,	Electricity,						
Tunnel No. 2,	Drift,	Non-gas.	Furnace,								36	1	16,000	2,700	16,200	20
Vinton Colliery Co.																
Vinton Nos. 2 and 3,*	Drifts,	Non-gas.	Fan,													
Vinton Nos. 1 and 4,	Drifts,	Non-gas.	Fan,	5	.4	3	322	2.	Sirocco,	Electricity,		7	73,210	26,985	73,250	162
Vinton No. 5,§	Slope,	Non-gas.	Fan,													
Vinton No. 6,	Slope,	Gaseous,	Fan,	7	2	2.8	290	.5	Stine,	Electricity,		3	50,890	23,040	51,000	158
Nant Y Glo Coal Mining Co.																
Nant Y Glo No. 1,	Drift,	Non-gas.	Fan,	7	2	2.8	215	.5	Stine,	Steam,		2	22,500	9,200	22,580	98
Big Bend Coal Mining Co.																
Non Pareil,	Slope,	Non-gas.	Fan,	10	4.6	3.5	220	2.8	Jeffrey,	Steam,		3	38,400	26,360	38,500	181
Altoona Coal and Coke Co.																
Delaney No. 5,	Slope,	Non-gas.	Fan,	16	4	3.5	140	3.1	Brazil,	Steam,		3	67,000	26,360	67,200	194
Horseshoe,	Drift,		Furnace,								30	1	8,500	5,000	8,540	44
No. 6 Mine,*	Drift,		Furnace,								30					
Forge Coal Mining Co.																
Forge Slope No. 1,	Slope,	Non-gas.	Fan,	12	4	3	100	.7	Brazil,	Steam,		2	57,100	18,600	57,220	110
Taylor and McCoy Coal and Coke Co.																
Gallitzin Shaft,	Shaft,	Non-gas.	Fan,	18	6	4.5	75	1.2	Connellsville.	Steam,		3	59,000	21,000	59,200	200
Cresson and Clearfield Coal and Coke Co.																
Dean No. 8,	Slope,	Non-gas.	Fan,	12	4	3	70	.8	Brazil,	Steam,		1	18,000	9,000	18,400	65
Dean No. 9,	Drift,		Furnace,								30					6
Dean No. 10,	Drift,		Fan,	12	4	3	90	1.	Brazil,	Electricity,		2	43,000	21,000	43,150	220
W. H. Piper and Co.																
Sonman No. 2,	Slope,	Non-gas.	Fan,	20	7	5	85	2.	Brazil,	Steam,		4	40,000	19,620	40,120	175

*Idle.
§Abandoned.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Miller Coal Co.																
Miller Shaft No. 1,	Shaft,	Non-gas.	Fan,	10	4	2.8	154	.5	Stine,	Steam,		2	33,100	12,100	33,200	120
George Pearce and Sons																
Excelsior No. 1,	Drift,	Non-gas.	Fan,	12	4	3	75	.5	Brazil,	Steam,		2	18,000	10,000	18,050	73
Excelsior No. 2,	Drift,	Non-gas.	Fan,	12	4	3	80	.4	Brazil,	Steam,		4	22,500	16,000	23,780	161
Lackawanna Coal and Coke Co.																
Lackawanna No. 4,	Slope and Shaft.	Gaseous,	Fan,	15	8	4.5	105	1.9	Capell,	Steam,		5	97,000	51,805	97,500	142
Irvona Coal and Coke Co.																
Irvona No. 5,	Drift,	Non-gas.	Fans,	7 7	2 2	2.8 2.8	180 180	.4 .4	Stine, Stine,	Steam, Steam,		2	27,000	10,500	27,100	85
Irvona No. 10,	Drift,	Non-gas.	Fan,	15	4.5	4.5	80	.9	Brazil,	Steam,		1	28,000	6,300	28,100	75
Leahey Coal Mining Co.																
Leahey No. 1,	Drift,	Non-gas.	Fan,	7	2	2.8	165	.4	Stine,	Steam,		1	13,650	3,400	13,700	44
Leahey No. 2,	Slope,	Non-gas.	Fan,	7	2	2.8	160	.....	Stine,	Steam,		1	15,000	3,600	15,300	70
Lilly Coal Co.																
Lilly No. 2,	Drift,	Non-gas.	Fan,	20	7	5	80	1.	Brazil,	Steam,		2	39,600	16,200	40,000	145
Glen White Coal and Lumber Co.																
Glen White No. 2,	Slope,	Non-gas.	Fan,	16	6	4	70	.8	Brazil,	Steam,		3	53,000	19,570	53,200	125

Estep Brothers Coal Mining Co.																	
Ivory Hill,	Slope,	Non-gas.	Furnace,									36	2	16,600	7,100	16,720	110
Baker Whitely Coal Co.																	
Ivy Ridge No. 1,	Drift,	Non-gas.	Fan,	10	2.75	3	140	.7	Brazil,	Electricity,			48,000	24,000	48,160	128
Penker Coal Co.																	
Penker No. 1,	Drift,	Non-gas.	Fan,	7	2	2.8	160	.4	Stine,	Gasoline,		2	16,000	7,000	16,050	86
Princess Coal Mining Co.																	
Priscilla No. 6,	Slope,	Non-gas.	Fan,	12	3.3	3.5	65	.5	Brazil,	Steam,		1	18,000	5,000	18,260	49
Priscilla No. 8,	Drift,	Non-gas.	Fan,	7	2	2.8	150	.3	Stine,	Steam,		1	21,450	10,440	21,500	39
Andersen Coal Mining Co.																	
Peerless No. 2,	Drift,	Non-gas.	Furnace,								36	1	16,100	6,500	16,620	60
Peerless No. 1,	Drift,	Non-gas.	Furnace,								36	1	7,500	2,800	7,550	32
Peerless No. 4,	Drift,	Non-gas.	Furnace,								36	1	4,600	2,000	4,630	17
Bens Creek—Sonman Coal Co.																	
Bens Creek Shaft,	Shaft,	Non-gas.	Fan,	16	4	3	50	.3	Brazil,	Steam,		2	24,700	5,500	24,750	79
A. Smith and Co.																	
Superior No. 1,	Drift,	Non-gas.	Furnace,								30	1	7,500	2,500	7,560	23
Superior No. 4,	Drift,	Non-gas.	Fan,	12	3.5	3	75	.5	Brazil,	Steam,		1	13,800	4,500	13,870	52
Blain Run Coal Co.,																	
Blain Run No. 1,	Drift,	Non-gas.	Fan,	16	4.5	4	90	.8	Brazil,	Steam,		2	31,000	13,440	31,100	68
J. Blair Kennerly																	
Beccaria,	Drift,	Non-gas.	Furnace,								36	3	13,500	11,700	13,600	100
Plymouth Coal Mining Co.																	
Plymouth No. 1,	Drift,	Non-gas.	Fan,	12	5	3	75	.7	Vulcan,	Steam,		2	21,200	6,960	21,280	102
Cardiff Coal Co.																	
Cardiff,	Drift,	Gaseous,	Fan,	16	4.5	4	68	.6	Brazil,	Steam,		2	30,000	8,750	30,100	55
Springfield Coal Mining Co.																	
Springfield No. 1,	Slope,	Non-gas.	Fan,	12	4	3	27	.2	Brazil,	Steam,		2	27,000	7,960	27,100	60
Lincoln Coal Co.																	
Lincoln,	Drift,	Non-gas.	Furnace,								36	1	18,500	3,000	18,700	50
S. S. Hegarty's Sons																	
Oakland No. 2,	Drift,	Non-gas.	Furnace,								36	1	11,640	4,800	11,660	38
Oakland No. 3,	Drift,	Non-gas.	Fan,	7	2	2.8	212	.5	Stine,	Steam,		2	27,000	23,500	27,100	45

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Kiskiminetas Coal Co.																
Kiskiminetas No. 2,	Drift,	Non-gas.	Fan,	12	4	3.7	56	.4	Brazil,	Steam,		1	24,000	8,750	24,056	40
Standard Coal Co.																
Standard No. 1,	Drift,	Non-gas.	Fan.	12	4	3	90	.6	Brazil,	Steam,		1	15,000	3,500	15,070	53
Aetna Coal Mining Co.																
Aetna No. 1,	Slope,	Non-gas.	Fan.	12	4	3	75	.5	Brazil,	Steam,		2	23,040	8,360	23,100	52
John A. Leap																
Plane,	Drift,	Non-gas.	Furnace,								24	1	8,500	5,000	8,750	57
Bellfield Coal and Coke Co.																
Bend No. 5,	Drift,	Non-gas.	Furnace,								36	1	11,400	3,000	11,350	61
Puritan Coal Mining Co.																
Puritan No. 1,	Shaft,	Non-gas.	Fan,	16	5	4	85	1.	Brazil,	Steam,		3	28,700	9,200	29,000	100
Puritan No. 2,	Drift,	Non-gas.	Furnace,								36	1	3,200	1,500	3,250	18
Harbison-Walker Refractories Co.																
Cambria No. 1,	Drift,	Non-gas.	Furnace,								36	1	8,400	4,800	8,500	23
Bells Mill Coal Co.																
Bells Mill,	Drift,	Non-gas.	Furnace,								36	1	4,800	200	4,880	9

E. W. Turley Co.																
Wister No. 3,	Drift,	Non-gas.	Natural,									1	2,900	1,800	2,950	18
Federal Coal and Coke Co.																
Knickerbocker No. 4,	Slope,	Non-gas,	Fan,	12	3.5	3	90	1.5	Brazil.	Steam,		1	21,000	2,500	21,200	28
Knickerbocker No. 5,	Drift,	Non-gas.														
Bennington Coal Co., Inc.																
Bennington No. 2,	Drift,	Non-gas.	Furnace,								16	1	5,416	1,700	5,400	23
Kelly and Flanagan																
Kelly No. 1,	Drift,	Non gas.	Furnace,								24	1	3,700	1,200	3,750	14
J. E. Schmittle																
Pleasant Hill,	Drift,	Non-gas.	Furnace,								30	1	5,120	2,500	5,200	15
Big Four Coal Mining Co., Limited																
Big Four No. 1,	Drift,	Non-gas.	Natural,									1	7,720	7,000	7,800	23
M. J. Leisenring Co.																
Sonman No. 1,	Drift,	Non-gas.	Fan,	12	4	3	30	.2	Brazil,	Steam,		1	12,000	3,500	12,100	20
Max Frick's Estate																
Frick's No. 2,	Drift,	Non-gas.	Furnaces,								50	2	9,400	3,900	9,500	22
F. A. Garman																
Wopsy,	Drift,	Non-gas.	Furnace,								30	1	5,000	4,000	5,010	9
Harris Collieries Co.																
Mount Verde,	Drift,	Non-gas.	Furnace,								35	1	6,000	4,000	6,090	42
Munster Coal Co.																
Eleanor,	Drift,	Non-gas.	Natural,									1	3,200	1,800	3,300	23
Ashville Coal and Coke Co.																
Ashville,	Slope,	Non-gas.	Fan,	4	1.8	1.33	200	.3	Sturdevant.	Steam,		1	7,600	3,000	7,650	17
Blacklick Mining Co.																
Big Bend No. 6,	Drift,	Non-gas.														
Bradley and Reed																
Bradley No. 1,	Drift,	Non-gas.	Furnace,								16	1	3,500	2,000	3,560	24
Auld Run Coal and Coke Co.																
Auld Run,	Drift,	Non-gas.	Furnace,								24	1	5,900	2,700	5,950	17

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pennsylvania Coal and Coke Co., (T. H. Watkins, Receiver),	Pennsylvania No. 7,	Drift,	Gaseous,	8	Electricity,	E or Lemon,	48			98,016
	Pennsylvania No. 16,	Slope,	Gaseous,	8						
	Pennsylvania No. 9,	Shaft,	Non-gas.	4	Electricity,	E or Lemon,	48			66,227
	Pennsylvania No. 10,	Slope,	Non-gas.	16	Electricity,	E or Lemon,	48			289,576
	Pennsylvania No. 14,	Drift,	Non-gas.	6	Compressed air,	B or Miller,	48			92,833
	Pennsylvania No. 19,	Slope,	Non-gas.	6	Electricity,	E or Lemon,	48			97,090
Totals,				40						643,742
Commercial Coal Mining Co.,	Commercial No. 5,	Slope,	Non-gas.	19	Compressed air,	B or Miller,	46	49	43	76,470
Portage Coal Mining Co.,	Portage No. 2,	Slope,	Non-gas.	17	Compressed air,	C or C Prime,	50	56	42	190,000
	Portage No. 4,	Shaft,	Non-gas.	7	Compressed air,	C or C Prime,	50	56	42	18,000
Totals,				24						208,000
Tunnel Coaling Co.,	Tunnel No. 1,	Drift,	Non-gas.	7	Electricity,	E or Lemon,	52	54	48	156,125
Big Bend Coal Mining Co.,	Non Pareil,	Slope,	Non-gas.	18	Electricity,	B or Miller,	46	49	43	125,752
Altoona Coal and Coke Co.,	Delaney No. 5,	Slope,	Non-gas.	7	Compressed air,	E or Lemon,	50			44,030
Forge Coal Mining Co.,	Forge Slope No. 1,	Slope,	Non-gas.	14	Compressed air,	C or C Prime,	54	66	42	133,451
Taylor and McCoy Coal and Coke Co.,	Gallitzin Shaft,	Shaft,	Non-gas.	6	Electricity,	E or Lemon,	48	50	46	107,151

Cresson and Clearfield Coal and Coke Co.	Dean No. 10,	Drift,	Non-gas.	10	Electricity,	C or C Prime,	54	66	30	48,000
Lackawanna Coal and Coke Co.,	Lackawanna No. 4,	Slope and Shaft.	Gaseous,	36	Compressed air,	B or Miller,	46	48	44	116,409
Irvona Coal and Coke Co.,	Irvona Nos. 5 and 10,	Drift and Slope.	Non-gas.	7	Electricity,	B or Miller,	48	50	44	60,000
Glen White Coal and Lumber Co.,	Glen White No. 2,	Slope,	Non-gas.	1	Compressed air,	E or Lemon,	48	48	48	5,437
Baker Whitely Coal Co.,	Ivy Ridge No. 1,	Drift,	Non-gas.	5	Electricity,	E or Lemon,	52	48	42	56,925
Blain Run Coal Co.,	Blain Run No. 1,	Drift,	Non-gas.	3	Compressed air,	B or Miller,	52	56	48	56,800
Springfield Coal Mining Co.,	Springfield No. 1,	Slope,	Non-gas.	9	Compressed air,	B or Miller,	45	48	42	24,418
A. Smith and Co.,	Superior No. 4,	Drift,	Non-gas.	3	Electricity,	C or C Prime,	52	60	42	48,470
Lincoln Coal Co.,	Lincoln,	Drift,	Non-gas.	4	Electricity,	B or Miller,	42	46	40	300
Grand totals,				213						1,911,480

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)						
Pennsylvania Nos. 1 and 2,	Cambria,			Fred Bland,	Myra,	Pennsylvania.
Pennsylvania Nos. 7 and 16,	Cambria,	J. F. Marstellar,	Cresson,	R. D. Mainwaring,	Cresson,	Pennsylvania and N. Y. C.
Pennsylvania Nos. 9, 10 and 14,				R. D. Mainwaring,	Cresson,	Pennsylvania.
Pennsylvania No. 19,	Blair,			R. D. Mainwaring,	Cresson,	Pennsylvania.
Commercial Coal Mining Co.						
Commercial No. 2,	Cambria,	W. C. Smith,	Expedit,	W. C. Smith, John Ford, Herbert Oldham, M. L. Smith,	Expedit,	Pennsylvania.
Commercial No. 3,						
Commercial No. 4,						
Commercial No. 5,						
Portage Coal Mining Co.						
Portage Nos. 2, 3* and 4,	Cambria,	H. A. Tompkins,	Portage,	D. B. Dunsmore,	Portage,	Pennsylvania.
Sonman Shaft Coal Co.						
Sonman Shaft,	Cambria,	James Strachan,	Sonman,	James Strachan,	Sonman,	Pennsylvania.
Shoemaker Coal Mining Co.						
Wilmore No. 1,	Cambria,	T. S. Shoemaker,	Philadelphia,	William Hardy,	Sonman,	Pennsylvania.
Tunnel Coaling Co.						
Tunnel Nos. 1 and 2,	Cambria,			M. J. Bracken,	Gallitzin,	Pennsylvania.
Vinton Colliery Co.						
Vinton Nos. 1 and 4,	Cambria,	S. Kedzie Smith,	Vintondale,			Pennsylvania.
Vinton No. 5,†						Pennsylvania.
Vinton No. 6,						Pennsylvania, B. R. and P.
Vinton Nos. 2 and 3,*						Pennsylvania.
Nant Y Glo Coal Mining Co.						
Nant Y Glo No. 1,	Cambria,	J. Edgar Long,	Philadelphia,	A. J. Cornely,	Nant Y Glo,	Pennsylvania.

*Idle.
†Abandoned.

Big Bend Coal Mining Co.						
Non Pareil,	Cambria,	W. C. Smith,	Expedit,	J. W. Harrison,	Expedit,	Pennsylvania.
Altoona Coal and Coke Co.						
Delaney No. 5,	Cambria,	C. C. Renshaw,	Altoona,	John L. Munro,	Coupon,	Kittanning Run.
Horseshoe,	Blair,					
No. 6 Mine,*	Blair,					
Forge Coal Mining Co.						
Forge Slope No. 1,	Cambria,	A. W. Riddell,	Glen Campbell,	Thomas Bellis,	Altoona,	Pennsylvania.
Taylor and McCoy Coal and Coke Co.						
Gallitzin Shaft,	Cambria,	F. D. McNells,	Gallitzin,			Pennsylvania.
Cresson and Clearfield Coal and Coke Co.						
Dean Nos. 8, 9 and 10,	Cambria,	T. S. Doherty,	Frugality,	T. S. Doherty,	Frugality,	Pennsylvania.
W. H. Piper and Co.						
Sonman Nos. 2 and 4,*	Cambria,			Joseph Appleyard,	Lilly,	Pennsylvania.
Miller Coal Co.						
Miller Shaft No. 1,	Cambria,	C. B. Maxwell,	Morrisdale Mines,	J. W. Buckwalter,	Portage,	Pennsylvania.
George Pearce and Sons						
Excelsior Nos. 1 and 2,	Cambria,	Robert Pearce,	Puritan,	Thomas J. Pearce,	Puritan,	Pennsylvania.
Lackawanna Coal and Coke Co.						
Lackawanna Nos. 3* and 4,	Indiana,	C. D. McCullough, Jr.	Buffalo, N. Y.,	W. N. Johnson,	Wehrum,	Pennsylvania and B. R. and P.
Irvona Coal and Coke Co.						
Irvona Nos. 5 and 10,	Clearfield,	Archie Bathgate,	Coalport,	George Bathgate,	Coalport,	P. and N. W.
Leahey Coal Mining Co.						
Leahey No. 1,	Cambria,			John McCool,	Lilly,	Pennsylvania.
Leahey No. 2,	Cambria,			Thomas Leahey,	Lilly,	Pennsylvania.
Lilly Coal Co.						
Lilly No. 2,	Cambria,	William Hahman,	Altoona,	George J. Hassenflug,	Lilly,	Pennsylvania.
Glen White Coal and Lumber Co.						
Glen White Nos. 1* and 2,	Blair,			L. C. Donoughe,	Glen White,	Pennsylvania.
Estep Brothers Coal Mining Co.						
Ivory Hill,	Cambria,			Thomas A. Estep,	Nant Y Glo,	Pennsylvania.

*Idle.

TABLE 1—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Baker Whitely Coal Co. Ivy Ridge No. 1,	Cambria,	James S. Whitely,	Baltimore, Md.,	W. E. Richards,	Portage,	Pennsylvania.
Penker Coal Co. Penker No. 1,	Cambria,	H. M. McAlarney,	Puritan,	H. M. McAlarney,	Puritan,	Pennsylvania.
Princess Coal Mining Co. Priscilla Nos. 6 and 8,	Cambria,	C. E. Potter,	Portage,			Pennsylvania.
Andersen Coal Mining Co. Peerless Nos. 1, 2 and 4,	Cambria,	C. S. Andersen,	131 State Street, Boston, Mass.	C. G. Bates,	Fallen Timber,	Pennsylvania.
Bens Creek—Sonman Coal Co. Bens Creek Shaft,	Cambria,	James Strachan,	Sonman,			Pennsylvania.
A. Smith and Co. Superior No. 1, Superior No. 4, Superior Nos. 2* and 3,*	Clearfield, Cambria, Clearfield,	A. Smith,	Dysart,			P. and N. W. Pennsylvania. P. and N. W.
Blain Run Coal Co. Blain Run No. 1,	Clearfield,	W. W. Helman,	Coalport,	W. W. Helman, Jr.,	Coalport,	P. and N. W.
J. Blair Kennerly Beccaria,	Cambria,	J. Blair Kennerly,	Philadelphia,	Charles Lamb,	Glasgow,	P. and N. W.
Plymouth Coal Mining Co. Plymouth No. 1,	Cambria,	Archie Bathgate,	Coalport,	Thomas D. Forsythe.	Portage,	Pennsylvania.
Cardiff Coal Co. Cardiff,	Cambria,	C. C. Dovey,	Cherrytree,	James Walker,	Nettleton,	Pennsylvania.
Springfield Coal Mining Co. Springfield No. 1,	Cambria,	Thomas Bellis,	Altoona,			Pennsylvania.

*Idle.

Lincoln Coal Co. Lincoln,	Cambria,	W. A. Marshall,	No. 1 Broadway, New York City.	Thomas A. Estep,	Nant Y Glo,	Pennsylvania.
S. S. Hegarty's Sons Oakland Nos. 2 and 3,	Clearfield,	W. W. Hegarty,	Coalport,	W. W. Hegarty,	Coalport,	P. and N. W.
Kiskiminetas Coal Co. Kiskiminetas No. 2,	Indiana,	George Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	Pennsylvania.
Standard Coal Co. Standard No. 1,	Cambria,	R. J. Hughes,	Altoona,	Thomas Stead,	Lilly,	Pennsylvania.
Aetna Coal Mining Co. Aetna No. 1,	Cambria,	P. F. Campbell,	Portage,	P. F. Campbell,	Portage,	Pennsylvania.
John A. Leap Plane,	Cambria,	John A. Leap,	Lilly,	Thomas Leap,	Lilly,	Pennsylvania.
Bellfield Coal and Coke Co. Bend No. 5,	Cambria,	F. P. McFarland,	Altoona,	T. E. Evans,	Blandburg,	P. and N. W.
Puritan Coal Mining Co. Puritan Nos. 1 and 2,	Cambria,	W. H. Soper,	Portage,	T. J. Reese,	Portage,	Pennsylvania.
Harbison-Walker Refractories Co. Cambria No. 1,	Cambria,	William McQuillen,	Woodland,			P. and N. W.
Bells Mill Coal Co. Bells Mill,	Indiana,	F. M. Graff,	Blairsville,			Pennsylvania.
E. W. Turley Co. Wister No. 3,	Clearfield,	E. W. Turley,	Irvona,			Pennsylvania.
Federal Coal and Coke Co. Knickerbocker Nos. 4 and 5,	Cambria,	W. H. Soper,	Portage,	T. J. Reese,	Portage,	Pennsylvania.
Bennington Coal Co., Inc. Bennington No. 2,	Blair,	L. W. Flanagan,	Altoona,	T. O. Williams,	Gallitzin,	Pennsylvania.
Kelly and Flanagan Kelly No. 1,	Cambria,	C. H. Kelly,	Altoona,			Altoona and Beech Creek.
J. E. Schmittle Pleasant Hill,	Cambria,	J. S. Schmittle,	Glasgow,			P. and N. W.
Big Four Coal Mining Co. Limited Big Four No. 1,	Cambria,	Martin McDermott,	Nant Y Glo,	Martin McDermott,	Nant Y Glo,	Pennsylvania.

TABLE 1—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
M. J. Leisenring Co. Sonman No. 1,	Cambria,			Charles McGill,	Lilly.	Pennsylvania.
Max Frick's Estate Frick's No. 2,	Cambria,	E. V. Frick,	No. 1 Broadway, New York City.			P. and N. W.
F. A. Garman Wopsy,†	Cambria,	F. A. Garman,	Blandburg,			Altoona and Beech Creek.
Harris Collieries Co. Mount Verde,	Clearfield,	E. W. Turley,	Irvona,			Pennsylvania.
Munster Coal Co. Eleanor,	Cambria,	H. Hahman,	Altoona,	John Cooper,	Portage,	Pennsylvania.
Ashville Coal and Coke Co. Ashville,	Cambria,	J. B. Wilson,	Ashville,	J. B. Wilson,	Ashville,	Pennsylvania.
Blacklick Mining Co. Big Bend No. 6,	Cambria,			J. W. Miller,	Belsano,	Pennsylvania.
Bradley and Reed Bradley Nos. 1 and 3,*	Blair,	F. X. Bradley,	Gallitzin,	F. X. Bradley,	Gallitzin,	Pennsylvania.
Auld Run Coal and Coke Co. Auld Run,	Indiana,	John Madill,	Heshbon,	John Madill,	Heshbon,	Pennsylvania.

*Idle.
†Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver).																
Pennsylvania No. 1,	Cambria,	39,719	.....	.....	.....	39,719	.....	.....	162	81	....	....	.....	.....	.....	7
Pennsylvania No. 2,	Cambria,	60,512	3,069	267	.....	63,848	.....	.....	251	113	....	....	.....	.....	.....	10
Pennsylvania Nos. 7 and 16,	Cambria,	112,820	5,399	651	.....	118,870	.....	.....	218	204	....	4	13,000	1,380	1,440	15
Pennsylvania No. 9,	Cambria,	61,026	9,361	5,895	73,892	150,174	47,465	100	270	280	2	2	20,700	3,300	2,700	19
Pennsylvania No. 10,	Cambria,	112,293	4,293	1,967	213,647	332,200	134,287	400	251	589	1	1	32,700	1,150	.....	54
Pennsylvania No. 14,	Cambria,	137,588	7,066	369	.....	145,023	.....	.....	217	260	1	2	14,000	2,100	1,500	23
Pennsylvania No. 19,	Blair,	73,925	961	401	36,086	111,373	22,958	50	246	175	....	....	11,000	860	.....	17
Totals,		597,883	30,149	9,550	323,625	961,207	204,710	550	.....	1,702	4	9	91,400	8,790	5,640	145
Commercial Coal Mining Co.																
Commercial No. 2,	Cambria,	10,813	354	1	.....	11,168	.....	.....	194	10	....	1	1,865	.....	.....	2
Commercial No. 3,	Cambria,	203,418	3,652	5	.....	207,075	.....	.....	208	340	....	6	36,800	5,550	4,000	24
Commercial No. 4,	Cambria,	104,413	1,445	372	.....	106,230	.....	.....	200	215	....	1	21,000	1,600	2,250	11
Commercial No. 5,	Cambria,	78,612	2,151	.....	.....	80,763	.....	.....	233	159	....	2	18,345	1,000	150	10
Totals,		397,256	7,602	378	.....	405,236	.....	.....	.....	724	....	10	78,010	8,150	6,400	47
Portage Coal Mining Co.																
Portage No. 2,	Cambria,	240,199	3,756	698	.....	244,653	.....	.....	258	350	1	3	11,600	2,650	.....	30
Portage No. 4,	Cambria,	21,338	2,508	463	.....	24,309	.....	.....	234	64	....	....	1,500	150	.....	6
Totals,		261,537	6,264	1,161	.....	268,962	.....	.....	.....	414	1	3	13,100	2,800	.....	36

TABLE 2 —Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Sonman Shaft Coal Co.																
Sonman Shaft,	Cambria,	240,276	3,000	500	.....	243,776	.....	.....	256	354	1	19	10,000	1,000	.....	35
Shoemaker Coal Mining Co.																
Wilmore No. 1,	Cambria,	220,402	1,680	.....	.....	222,082	.....	.....	217	328	4	1	24,500	1,110	200	19
Tunnel Coaling Co.																
Tunnel No. 1,	Cambria,	190,013	3,482	1,730	.....	195,225	.....	.....	224	229	.....	.....	30,560	400	.....	23
Tunnel No. 2,		4,200	.....	.....	.....	4,200	.....	.....	59	27	.....	.....	.....	.....	.....	.....
Totals,		194,213	3,482	1,730	.....	199,425	.....	.....	.....	256	.....	.....	30,560	400	.....	23
Vinton Colliery Co.																
Vinton Nos. 1 and 4,	Cambria,	96,268	2,550	.....	.....	98,818	.....	.....	242	176	.....	2	23,000	2,750	.....	19
Vinton No. 5,		4,000	579	.....	.....	4,579	.....	.....	16	113	.....	.....	1,250	150	.....	4
Vinton No. 6,		35,717	2,200	.....	56,551	94,468	31,837	152	265	152	.....	1	25,250	3,000	1,200	10
Totals,		135,985	5,339	.....	56,551	197,865	31,837	152	.....	441	.....	3	49,500	5,900	1,200	33
Nant Y Glo Coal Mining Co.																
Nant Y Glo No. 1,	Cambria,	167,946	727	.....	.....	168,673	.....	.....	257	260	1	3	28,402	2,000	.....	30
Big Bend Coal Mining Co.																
Non Pareil,	Cambria,	163,285	2,299	2,077	.....	167,661	.....	.....	278	200	.....	8	32,100	4,300	.....	18

Altoona Coal and Coke Co.																
Delaney No. 5,	Cambria,	137,028	2,748	1,177	7,162	148,115	4,860	70	173	312	----	2	30,000	--------	--------	30
Horseshoe,	Blair,	14,480	30	--------	--------	14,510	--------	------	109	44	----	----	2,500	250	--------	5
Totals,		151,508	2,778	1,177	7,162	162,625	4,860	70	------	356	----	2	32,500	250	--------	35
Forge Coal Mining Co.																
Forge Slope No. 1,	Cambria,	154,843	2,159	--------	--------	157,002	--------	------	220	161	----	1	23,295	300	--------	23
Taylor and McCoy Coal and Coke Co.																
Gallitzin Shaft,	Cambria,	45,905	2,835	3,532	91,853	144,125	60,160	212	203	279	1	3	25,000	--------	--------	24
Cresson and Clearfield Coal and Coke Co.																
Dean No. 8,	Cambria,	13,556	2,880	--------	5,175	21,611	2,587	40	124	118	1	----	4,934	--------	--------	7
Dean No. 9,		--------	--------	1,517	3,295	4,812	1,978	12	113	29	----	----	1,155	--------	--------	1
Dean No. 10,		111,760	2,400	--------	--------	114,160	--------	------	217	237	----	2	16,091	--------	--------	16
Totals,		125,316	5,280	1,517	8,470	140,583	4,565	52	------	384	1	2	22,180	--------	--------	24
W. H. Piper and Co.																
Sonman No. 2,	Cambria,	121,324	3,654	1,040	--------	126,018	--------	------	160	204	----	2	4,800	4,200	--------	19
Miller Coal Co.																
Miller Shaft No. 1,	Cambria,	114,780	6,336	579	--------	121,695	--------	------	281	197	2	3	2,000	950	--------	21
George Pearce and Sons																
Excelsior Nos. 1 and 2,	Cambria,	116,159	250	--------	--------	116,409	--------	------	178	248	1	----	10,070	200	--------	15
Lackawanna Coal and Coke Co.																
Lackawanna No. 4,	Indiana,	96,455	19,172	782	--------	116,409	--------	------	153	197	21	12	11,450	2,150	9,300	4
Irvona Coal and Coke Co.																
Irvona No. 5,	Clearfield,	45,599	2,116	120	10,389	58,224	7,462	100	150	175	----	2	9,750	750	--------	20
Irvona No. 10,		37,800	770	--------	--------	38,570	--------	------	140	120	----	----	7,925	540	--------	12
Totals,		83,399	2,886	120	10,389	96,794	7,462	100	------	295	----	2	17,675	1,290	--------	32
Leahey Coal Mining Co.																
Leahey No. 1,	Cambria,	34,825	406	154	--------	35,385	--------	------	266	57	----	1	4,270	350	--------	10
Leahey No. 2,		46,154	2,884	110	--------	49,148	--------	------	264	78	----	---	5,976	6,000	--------	5
Totals,		80,979	3,290	264	--------	84,533	--------	------	------	135	----	1	10,246	6,350	--------	15
Lilly Coal Co.																
Lilly No. 2,	Cambria,	71,236	1,221	327	--------	72,784	--------	------	137	147	----	1	1,250	500	--------	11

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Glen White Coal and Lumber Co.																
Glen White No. 2,	Blair,	32,514	2,852	229	36,336	71,931	23,676	90	208	170	1	1	11,875	.....	200	10
Estep Brothers Coal Mining Co.																
Ivory Hill,	Cambria,	66,758	600	820	.....	68,178	.....	.....	172	116	.....	.....	21,000	350	200	16
Baker Whitely Coal Co.																
Ivy Ridge No. 1,	Cambria,	67,712	152	252	.....	68,116	.....	.....	207	141	.....	.....	17,029	250	50	10
Penker Coal Co.																
Penker No. 1,	Cambria,	65,331	.....	212	.....	65,543	.....	.....	224	90	.....	.....	6,175	78	.....	10
Princess Coal Mining Co.																
Priscilla Nos. 6 and 8,	Cambria,	62,156	716	228	.....	63,100	.....	.....	232	100	.....	2	12,400	50	.....	11
Andersen Coal Mining Co.																
Peerless No. 2,	Cambria,	32,146	110	457	.....	32,713	.....	.....	215	82	.....	.....	7,480	.....	.....	7
Peerless No. 1,	Cambria,	16,951	42	3	.....	16,996	.....	.....	217	35	.....	.....	4,250	.....	.....	3
Peerless No. 4,	Cambria,	9,243	42	12	.....	9,297	.....	.....	217	21	.....	.....	2,775	.....	.....	1
Totals,		58,340	194	472	.....	59,006	.....	.....	.....	138	.....	.....	14,505	.....	.....	11
Bens Creek—Sonman Coal Co.																
Bens Creek Shaft,	Cambria,	53,110	5,500	100	.....	58,710	.....	.....	247	85	.....	.....	500	.....	.....	8

A. Smith and Co.																
Superior No. 1,	Clearfield,	9,499				9,499			210	22			3,125	50		2
Superior No. 4,	Cambria,	48,150	250	70		48,470			221	86			12,875	100		5
Totals,		57,649	250	70		57,969				108			16,000	150		7
Blain Run Coal Co.																
Blain Run No. 1,	Clearfield,	55,000	1,800			56,800			226	106			10,000			7
J. Blair Kennerly																
Beccaria,	Cambria,		344	810	53,190	54,344	36,777	80	277	120			6,900	920		10
Plymouth Coal Mining Co.																
Plymouth No. 1,	Cambria,	51,177	219	957		52,353			196	114			4,375			12
Cardiff Coal Co.																
Cardiff,	Cambria,	48,787	1,434	408		50,629			102	148		1	5,625	400	3,000	4
Springfield Coal Mining Co.																
Springfield No. 1,	Cambria,	46,413	2,158	264		48,835			221	84			2,690	1,150		6
Lincoln Coal Co.																
Lincoln,	Cambria,	48,313	200	100		48,613			205	84		2	12,000	600	500	
S. S. Hegarty's Sons																
Oakland No. 2,	Clearfield,	25,703	300	31		26,034			140	59			200	35		5
Oakland No. 3,		21,727	546	67		22,340			97	86			157	50		6
Totals,		47,430	846	98		48,374				145			357	85		11
Kiskiminetas Coal Co.																
Kiskiminetas No. 2,	Indiana,	45,098	360	60		45,518			233	70	1		9,800			8
Standard Coal Co.																
Standard No. 1,	Cambria,	42,946	275	12		43,233			215	68		1	4,300	600		12
Aetna Coal Mining Co.																
Aetna No. 1,	Cambria,	33,503	700	1,200		35,403			239	56			3,500	800		3
John A. Leap																
Plane,	Cambria,	34,975	250			35,225			180	65			7,200	25		8
Bellfield Coal and Coke Co.																
Bend No. 5,	Cambria,	32,245	150			32,395			210	54		2	8,000	50		4

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Puritan Coal Mining Co.																
Puritan No. 1,	Cambria,	25,000	2,500	500		28,000			115	191			1,000	1,000		8
Puritan No. 2,		10,000				10,000		25	115	37			200	400		2
Totals,		35,000	2,500	500		38,000		25		228			1,200	1,400		10
Harbison-Walker Refractories Co.																
Cambria No. 1,	Cambria,		19,684			19,684			290	24			11,930	785		2
Bells Mill Coal Co.																
Bells Mill,	Indiana,	16,608	125			16,733			211	40			200	50		
E. W. Turley Co.																
Wister No. 3,	Clearfield,	14,467		64		14,531			241	17			2,500			1
Federal Coal and Coke Co.																
Knickerbocker No. 4,	Cambria,	3,000	300			3,300			20	31			100	200		2
Knickerbocker No. 5,		7,000				7,000			72	96			500	500	500	7
Totals,		10,000	300			10,300				127			600	700	500	9
Bennington Coal Co., Inc.																
Bennington No. 2,	Blair,	9,718				9,718			162	21		1	3,125			2
Kelly and Flanagan																
Kelly No. 1,	Cambria,	7,673		343		8,016			209	16			2,000			3

J. E. Schmittle Pleasant Hill,	Cambria,	6,968		1		6,969			190	15			3,775	45		2
Big Four Coal Mining Co., Limited Big Four No. 1,	Cambria,	5,724		308		6,032			80	28			1,050	120		4
M. J. Leisenring Co. Sonman No. 1,	Cambria,	5,618	250	20		5,888			105	26						4
Max Frick's Estate Frick's No. 2,	Cambria,	5,029	35	67		5,131			102	24	1		800	250		4
F. A. Garman Wopsy,	Cambria,	4,093				4,093			100	9			600			1
Harris Collieries Co. Mount Verde,	Clearfield,	3,813				3,813			43	44			2,000			2
Munster Coal Co. Eleanor,	Cambria,	3,164	10	17		3,191			40	25						4
Ashville Coal and Coke Co. Ashville,	Cambria,	3,000				3,000			50	21						1
Blacklick Mining Co. Big Bend No. 6,	Cambria,	2,103		106		2,209			18	30						2
Bradley and Reed Bradley No. 1,	Blair,	2,000		25		2,025			82	26			50			4
Auld Run Coal and Coke Co. Auld Run,	Indiana,	500				500			20	21			625			2
Grand totals,		4,625,622	152,297	32,477	587,576	5,397,972	374,047	1,331		10,086	40	95	722,724	59,498	27,190	834

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pennsylvania Coal and Coke Co., (T. H. Watkins, Receiver).	Cambria and Blair.			21	2,835	2,835			12	24	2,475	9	3,100	2,700	7	2
Commercial Coal Mining Co.,	Cambria,			11	1,600	1,600			6	10	1,236	3	536	400	4	2
Portage Coal Mining Co.,	Cambria,	2	364	4	600	964				5	480	3	1,100	600		3
Sonman Shaft Coal Co.,	Cambria,			6	825	825			4	5	1,050	3	5,000	2,000	1	
Shoemaker Coal Mining Co.,	Cambria,			3	380	380				2	350	1	500	500		
Tunnel Coaling Co.,	Cambria,	1	15	3	400	415	1		2	5	670	2	512	400	2	
Vinton Colliery Co.,	Cambria,			4	2,000	2,000	2		5	6	1,750	2	550	550	5	
Nant Y Glo Coal Mining Co.,	Cambria,			1	80	80				1	92					
Big Bend Coal Mining Co.,	Cambria,			3	510	510			3	4	500	2	270	200	2	
Altoona Coal and Coke Co.,	Cambria and Blair.	4	160	3	350	510				3	510	1			1	2
Forge Coal Mining Co.,	Cambria,			2	400	400				2	85	2	830	380		2
Taylor and McCoy Coal and Coke Co.,	Cambria,			4	460	460			1	4	200				2	
Cresson and Clearfield Coal and Coke Co.	Cambria,			9	985	985			5	2	1,000	2	800	800	2	1
W. H. Piper and Co.,	Cambria,			4	750	750				2	330	2	780	400		2
Miller Coal Co.,	Cambria,			3	600	600				7	465	2	400	100		1
George Pearce and Sons,	Cambria,	1	25	2	95	120				4	89					
Lackawanna Coal and Coke Co.,	Indiana,			8	2,000	2,000	2		6	6	2,260	2	4,000	1,600	4	3
Irvona Coal and Coke Co.,	Clearfield,			6	590	590			3	9	605	4	455	360	3	
Leahey Coal Mining Co.,	Cambria,	4	450	2	55	505	1			4	120	3	970	970		
Lilly Coal Co.,	Cambria,	1	125	2	300	425			1	3	425				1	
Glen White Coal and Lumber Co.,	Blair,	4	220			220	2			4	185	1	600	370		1
Estep Brothers Coal Mining Co.,	Cambria,			2	140	140				3		1	500	200		
Baker Whitely Coal Co.,	Cambria,			2	300	300			1	2	475				1	
Princess Coal Mining Co.,	Cambria,			3	275	275				2	95	2	461	461		
Bens Creek—Sonman Coal Co.,	Cambria,			2	200	200				2	200					

A. Smith and Co.,	Cambria and Clearfield.			1	150	150			2	1	135				1	
Blain Run Coal Co.,	Clearfield,			2	200	200				6	160	2	1,350	750		1
J. Blair Kennerly,	Cambria,			2	120	120				1	40					
Plymouth Coal Mining Co.,	Cambria,			1	50	50				1	30					
Cardiff Coal Co.,	Cambria,			2	200	200			2	2	300				1	
Springfield Coal Co.,	Cambria,			2	300	300				3	170	2	100	100		2
Lincoln Coal Co.,	Cambria,			1	150	150			3	2	227				1	
S. S. Hegarty's Sons,	Clearfield,			2	120	120				1	40	2	520	400		
Kiskiminetas Coal Co.,	Indiana,			1	150	150				2	80	1	80	40		
Standard Coal Mining Co.,	Cambria,	1	30			30				1	30					
Aetna Coal Mining Co.,	Cambria,			1	80	80				1	60	1	140	100		
Puritan Coal Mining Co.,	Cambria,			8	400	400			4	3	400	1	600	500	3	
Bells Mill Coal Co.,	Indiana,			1	150	150						1	80	35		1
Federal Coal and Coke Co.,	Cambria,			2	130	130			3	1	130	1	100	100	1	
M. J. Leisenring Co.,	Cambria,	2	100			100				1	75					
Ashville Coal and Coke Co.,	Cambria,	1	35			35				2	25	1	150	100		
Bradley and Reed,	Blair,	1	35			35				1	25					
Grand totals,		22	1,559	136	18,930	20,489	8		63	150	17,574	59	24,484	14,416	42	23

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pennsylvania Coal and Coke Co., (T. H. Watkins, Receiver.)	Cambria and Blair.	7	5	1	322	46	703	46	98	27	125	----	1,380	1	2	23	29	194	4	69	322	1,702
Commercial Coal Mining Co.,	Cambria,	3	2	----	443	9	111	9	47	2	22	9	657	4	----	9	10	------	3	41	67	724
Portage Coal Mining Co.,	Cambria,	2	1	----	35	48	238	14	21	3	15	5	382	2	1	4	8	------	3	14	32	414
Sonman Shaft Coal Co.,	Cambria,	1	2	----	300	----	----	----	22	3	10	----	338	1	1	5	3	------	2	4	16	354
Shoemaker Coal Mining Co.,	Cambria,	1	1	----	259	----	----	----	22	3	24	----	310	1	----	3	3	------	1	10	18	328
Tunnel Coaling Co.,	Cambria,	2	1	----	51	9	118	9	17	5	5	6	223	1	1	3	5	------	1	22	33	256
Vinton Colliery Co.,	Cambria,	3	----	2	300	----	----	----	18	2	60	----	385	----	----	4	7	------	11	34	56	441
Nant Y Glo Coal Mining Co.,	Cambria,	1	1	----	222	----	----	----	15	5	10	----	254	1	----	2	2	------	1	------	6	260
Big Bend Coal Mining Co.,	Cambria,	1	1	----	------	8	137	8	14	1	9	2	181	1	----	4	3	------	1	10	19	200
Altoona Coal and Coke Co.,	Cambria and Blair.	2	1	----	217	5	40	5	26	------	10	3	309	1	----	5	6	18	1	16	47	356
Forge Coal Mining Co.,	Cambria,	1	1	----	23	9	74	9	15	5	8	----	145	1	----	1	4	------	1	9	16	161
Taylor and McCoy Coal and Coke Co.,	Cambria,	1	----	----	49	6	110	6	15	2	8	12	209	1	1	4	6	52	2	4	70	279
Cresson and Clearfield Coal and Coke Co.,	Cambria,	3	----	----	159	19	100	12	21	6	------	10	339	1	2	6	5	21	2	17	54	384
W. H. Piper and Co.,	Cambria,	1	1	----	157	----	----	----	19	1	3	4	186	----	----	2	5	------	1	10	18	204
Miller Coal Co.,	Cambria,	1	----	----	150	----	----	----	20	3	9	----	183	1	----	2	5	------	1	5	14	197
George Pearce and Sons,	Cambria,	2	----	----	212	----	----	----	15	3	2	----	234	2	----	2	2	------	1	7	14	248
Lackawanna Coal and Coke Co.,	Indiana,	1	1	2	120	----	----	----	6	------	12	----	142	1	1	5	12	------	3	33	55	197
Irvona Coal and Coke Co.,	Clearfield,	2	1	----	74	7	118	7	24	7	5	----	245	1	----	3	5	28	1	12	50	295
Leahey Coal Mining Co.,	Cambria,	2	----	----	100	----	----	----	10	2	9	----	123	----	----	2	3	------	2	5	12	135

Lilly Coal Co.,	Cambria,	1			116				11		5		133	1		2	3			8	14	147
Glen White Coal and Lumber Co.,	Blair,	1	1		120				7	2	2		133	1		2	4	22	2	6	37	170
Estep Brothers Coal Mining Co.,	Cambria,	1			95				6	3	2		107	1	1	1	2			4	9	116
Baker Whitely Coal Co.,	Cambria,	1	1		56	4	42	4	11	2	7		128			2	2		1	8	13	141
Penker Coal Co.,	Cambria,	1			73				10	1	1		86	1		1				2	4	90
Princess Coal Mining Co.,	Cambria,	2			75				8	2	1		88	1		1	4		1	5	12	100
Andersen Coal Mining Co.,	Cambria,	2			119				8	1	2		132	1		1			1	3	6	138
Bens Creek—Sonman Coal Co	Cambria,	1			65				7	1	4	1	79	1		1	3		1		6	85
A. Smith and Co.,	Clearfield and Cambria.	2			30	3	52	3	5	1	2		98	1		2	2		1	4	10	108
Blain Run Coal Co.,	Clearfield,	1	1		14	4	58	4	9	1	2	1	95	1	1	1	2		1	5	11	106
J. Blair Kennerly,	Cambria,	1			83				7		1		92	1	1	1	1	22		2	28	120
Plymouth Coal Mining Co.,	Cambria,	1			97				9	2	1		110	1		1	1		1		4	114
Cardiff Coal Co.,	Cambria,	1		2	125				4	2	1		135	1		1	4		1	6	13	148
Springfield Coal Mining Co.,	Cambria,	1				9	43	9	7		6		75			1	3			5	9	84
Lincoln Coal Co.,	Cambria,	1			65				6		1		73	1		2	2		1	5	11	84
S. S. Hegarty's Sons,	Clearfield,	2			114				8		5		129	2	2	2	2		2	6	16	145
Kiskiminetas Coal Co.,	Indiana,	1			60				4		2		67			1	1		1		3	70
Standard Coal Co.,	Cambria,	1	1		50				9	1	2		64	1		1	2				4	68
Aetna Coal Mining Co.,	Cambria,	1			40				3		5		49	1		1	2		1	2	7	56
John A. Leap,	Cambria,	1			50				7	1	1		60						2	3	5	65
Bellfield Coal and Coke Co.,	Cambria,	1			45				2	1	1		50	1		1				2	4	54
Puritan Coal Mining Co.,	Cambria,	2	1		180				10		22		215	1		2	3		2	5	13	228
Harbison-Walker Refractories Co.,	Cambria,	1			18				1		2		22							2	2	24
Bells Mill Coal Co.,	Indiana,	1			29				3			2	35	1		1	2		1		5	50
E. W. Turley Co.,	Clearfield,	1			15				1				17									17
Federal Coal and Coke Co.,	Cambria,	2			95				7	1	19		124			1	2				3	127
Bennington Coal Co., Inc.,	Blair,	1			16				1				18	1						2	3	21
Kelly and Flanagan,	Cambria,	1			9				3		1		14	1					1		2	16
J. E. Schmittle,	Cambria,	1			13				1				15									15
Big Four Coal Mining Co. Limited,	Cambria,	1			20				2	1	1		25	1		1				1	3	28
M. J. Leisenring Co.,	Cambria,	1			20				2		1		24	1			1				2	26
Max Frick's Estate,	Cambria,	1			18						2	1	22			1				1	2	24
F. A. Garman,	Cambria,				8				1				9									9
Harris Collieries Co.,	Clearfield,	1			38				2		1		42		1	1					2	44
Munster Coal Co.,	Cambria,	1			18				4				23			1				1	2	25
Ashville Coal and Coke Co.,	Cambria,	1			15				1		1		18	1			1			1	3	21
Blacklick Mining Co.,	Cambria,	1			20				2		1		24	1		2			1	2	6	30
Bradley and Reed,	Blair,	1			20				2		1		24	1						1	2	26
Auld Run Coal and Coke Co.	Indiana,	1			13				2		1	2	19						1	1	2	21
Totals,		81	24	7	5,250	186	1,944	145	638	103	453	58	8,889	48	15	125	172	357	65	415	1,197	10,086

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal and Coke Co.,	Cambria and Blair.	18	17	23	16	16	16	14	18	23	23	23	24	231
Commercial Coal Mining Co.,	Cambria,	14	14	18	13	14	16	17	19	22	22	23	17	209
Portage Coal Mining Co.,	Cambria,	20	16	21	21	19	22	20	24	23	19	21	20	246
Sonman Shaft Coal Co.,	Cambria,	23	21	21	19	24	26	23	25	24	14	17	19	256
Shoemaker Coal Mining Co.,	Cambria,	22	17	22	15	13	17	15	23	20	17	18	18	217
Tunnel Coaling Co.,	Cambria,	9	7	9	8	7	8	8	8	16	17	20	24	141
Vinton Colliery Co.,	Cambria,	12	11	17	15	13	11	14	16	17	16	16	16	174
Nant Y Glo Coal Mining Co.,	Cambria,	24	16	22	21	23	23	17	23	22	24	22	20	257
Big Bend Coal Mining Co.,	Cambria,	23	24	28	16	21	25	24	26	20	25	23	23	278
Altoona Coal and Coke Co.,	Cambria and Blair.	18	18	16	10	10	10	7	9	7	9	14	13	141
Forge Coal Mining Co.,	Cambria,	20	19	19	15	16	18	22	18	22	15	18	18	220
Taylor and McCoy Coal and Coke Co.,	Cambria,	15	12	19	11	8	13	13	15	24	24	24	25	203
Cresson and Clearfield Coal and Coke Co.,	Cambria,	16	14	17	18	12	11	11	6	6	8	15	17	151
W. H. Piper and Co.,	Cambria,	12	12	14	10	12	13	13	13	18	13	17	13	160
Miller Coal Co.,	Cambria,	23	21	26	22	23	26	25	25	23	21	24	22	281
George Pearce and Sons,	Cambria,	15	9	16	14	9	11	14	12	18	20	20	20	178
Lackawanna Coal and Coke Co.,	Indiana,	8	9	13	11	11	8	13	13	11	21	14	21	153
Irvona Coal and Coke Co.,	Clearfield,	.....	7	6	7	10	9	11	15	17	23	23	20	145
Leahey Coal Mining Co.,	Cambria,	24	21	24	23	21	17	21	21	23	24	24	22	265
Lilly Coal Co.,	Cambria,	11	8	9	15	10	15	10	10	11	11	13	14	137
Glen White Coal and Lumber Co.,	Blair,	24	21	22	20	17	9	8	9	14	17	23	24	208
Estep Brothers Coal Mining Co.,	Cambria,	18	13	16	1	10	15	15	12	8	12	22	20	172
Baker Whitely Coal Co.,	Cambria,	14	14	15	15	19	16	17	17	20	21	20	19	207
Penker Coal Co.,	Cambria,	25	20	23	13	15	14	15	14	17	21	25	22	224
Princess Coal Mining Co.,	Cambria,	20	17	22	18	21	18	23	21	21	17	16	18	232
Andersen Coal Mining Co.,	Cambria,	21	19	14	17	19	18	19	16	19	18	15	21	216
A. Smith and Co.,	Clearfield and Cambria.	19	13	16	18	17	13	20	24	22	19	15	19	215
Bens Creek-Sonman Coal Co.,	Cambria,	24	21	26	22	23	17	22	20	18	13	21	20	247
Blain Run Coal Co.,	Clearfield,	20	18	23	15	13	6	22	23	24	22	21	19	226
J. Blair Kennerly,	Cambria,	24	22	25	24	23	23	22	23	22	23	22	24	277

Plymouth Coal Mining Co.,	Cambria,	10	14	27	19	16	12	13	11	18	17	21	18	196
Cardiff Coal Co.,	Cambria,	11	12	8	5	3	6	9	4		8	17	19	102
Springfield Coal Mining Co.,	Cambria,	21	19	18	17	19	15	8	23	22	18	18	23	221
Lincoln Coal Co.,	Cambria,			20	22	20	18	21	24	21	18	20	21	205
S. S. Hegarty's Sons,	Clearfield,	11	10	9	11	8	4	6	4	6	14	18	18	119
Kiskiminetas Coal Co.,	Indiana,	16	14	29	12	18	28	26	24	21	15	14	16	233
Standard Coal Co.,	Cambria,	15	10	15	12	15	18	17	25	24	21	22	21	215
Aetna Coal Mining Co.,	Cambria,	23	20	18	19	21	22	20	21	19	22	18	16	239
John A. Leap,	Cambria,	11	10	12	10	14	17	16	19	22	14	18	17	180
Bellfield Coal and Coke Co.,	Cambria,	16	14	17	18	19	17	19	16	18	17	19	20	210
Puritan Coal Mining Co.,	Cambria,	15	15	15						15	15	20	20	115
Harbison-Walker Refractories Co.,	Cambria,	26	20	21	24	19	25	26	26	26	26	25	26	290
Bells Mill Coal Co.,	Indiana,	25	20	12	14	8	13	14	20	21	20	21	23	211
E. W. Turley Co.,	Clearfield,	18	16	19	22	20	14	23	24	22	24	20	19	241
Federal Coal and Coke Co.,	Cambria,									6	10	15	15	46
Bennington Coal Co., Inc.,	Blair,	20	15	18	9	7	9	19	11	15	12	13	14	162
Kelly and Flanagan,	Cambria,	22	20	19	10	11	9		26	25	25	22	20	209
J. E. Schmittle,	Cambria,	14	19	17	14	15	18	13	18	17	16	14	15	190
Big Four Coal Mining Co., Limited,	Cambria,						11	4	6	11	12	20	16	80
M. J. Leisenring Co.,	Cambria,			14	14	14				10	20	20	13	105
Max Frick's Estate,	Cambria,	10	12	16	12	14	9	6	4			5	14	102
F. A. Garman,	Cambria,	22	22	24	22	10								100
Harris Collieries Co.,	Clearfield,											22	21	43
Munster Coal Co.,	Cambria,	8	3	2	4	3			3	4	3	5	5	40
Ashville Coal and Coke Co.,	Cambria,	12	11	9								8	10	50
Blacklick Mining Co.,	Cambria,											3	15	18
Bradley and Reed,	Blair,								10	12	20	20	20	82
Auld Run Coal and Coke Co.,	Indiana,											10	10	20

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 8	Steve Wehalko,	Slavonian,	Miner,	35	M.	1	2	Miller Shaft No. 1,	Cambria,	Instantly killed by fall of coal while undermining at face of his room. He failed to set sprags.
8	John Kolt,	Slavonian,	Miner,	26	S.			Wilmore No. 1,	Cambria,	Fatally injured by fall of coal while undermining a narrow crosscut of heading.
13	John Fitsko,	Hungarian,	Miner,	33	S.			Pennsylvania No. 10,	Cambria,	Fatally injured by fall of coal while undermining in robbing a pillar.
24	Washie Gromoshab,	Russian,	Miner,	43	M.	1	1	Miller Shaft No. 1,	Cambria,	Fatally injured by fall of rock while laying track at face of his room. He failed to set props.
March 15	Mike Molonooey,	Austrian,	Miner,	26	S.			Portage No. 2,	Cambria,	Fatally injured by fall of coal while undermining at face of his room. He neglected to set sprags.
April 23	Tony Toliac,	Italian,	Miner,	61	M.	1	5	Kiskiminetas No. 2,	Indiana,	Fatally injured by fall of bony coal at face of his room, while trying to take it down.
23	John Romansky,	Polish,	Miner,	27	M.	1		Sonman Shaft,	Cambria,	Instantly killed by fall of rock. He and two others were working at face of the heading when the roof fell upon them, instantly killing Romansky. They had failed to examine the roof.
May 10	Bernard Campbell,	Irish,	Miner.	54	S.			Frick's No. 2,	Cambria,	Killed by fall of rock. He had pushed a loaded car out of his room and, on returning to the face, was caught by rock falling from a cutter in the roof.
13	Michael Gensky,	Polish,	Miner,	63	S.			Dean No. 8,	Cambria,	Killed by fall of rock while undermining along a pillar in his room. His body was not found until two days later, as the mine was idle.

June	23	Lorey Louis,	Italian,	Miner,	22	M.	1	2			
	23	Ernest Barrocchi,	Italian,	Miner,	41	S.					
	23	Dominick Lilton,	Italian,	Miner,	21	S.					
	23	Tony Batista,	Italian,	Miner,	20	S.					
	23	Tony Totena,	Italian,	Miner,	22	S.					
	23	Charles Foldy,	Slavonian,	Miner,	32	M.	1	4			
	23	A. D. Raymer,	American,	Pumpman,	31	M.	1	1			
	23	George Kowash,	Slavonian,	Trackman,	23	S.					
	23	Simon Rominiski,	Russian,	Miner,	36	S.			Lackawanna No. 4,	Indiana,	Instantly killed by dust explosion.
	23	Steve Base,	Polish,	Miner,	35	S.					
	23	Kosti Sewick,	Lithuanian,	Miner,	31	S.					
	23	George Lenn,	Lithuanian,	Miner,	34	M.	1	3			
	23	Joe Meniott,	Italian,	Miner,	25	S.					
	23	Mike Lilton,	Italian,	Miner,	23	S.					
	23	Alex. Shaftock,	Slavonian,	Miner,	46	M.	1	2			
	23	Charles Georda,	Italian,	Miner,	22	M.	1	1			
	23	Charles Loray,	Italian,	Miner,	20	S.					
	23	Frank Delegram,	Italian,	Rockman,	27	S.					
	23	P. F. Burns,	American,	Trackman,	32	M.	1	3			
	23	William Burns,	American,	Electrician,	37	M.	1	5	Lackawanna No. 4,	Indiana,	Fatally burned by dust explosion.
	23	C. E. Huey,	American,	Runner,	37	M.	1	2			
Aug.	24	Joseph Hoster,	Austrian,	Miner,	41	M.	1		Excelsior No. 1,	Cambria,	Killed by fall of slate while loading a car of coal at face of his room.
Sept.	3	Thomas Bender,	American,	Miner,	17	S.			Glen White No. 2,	Blair,	Fatally burned by explosion of can of powder. He was about to enter the mine and had placed the powder can on the rear car of the trip when it exploded. Outside.
Oct.	1	James Scott,	Scotch,	Rockman,	28	M.	1	2	Pennsylvania No. 9,	Cambria,	Instantly killed by fall of roof. These men were working together taking down the ripping along the main heading when the roof immediately above the ripping fell upon them.
	1	Howard Bradley,	American,	Rockman,	19	S.					
Nov.	30	John Mackey,	Swedish,	Miner,	24	S.			Pennsylvania No. 14,	Cambria,	Fatally injured by cars. One loaded and five empty cars were standing on the heading. Mackey's partner released the brake of one of the empty cars. This started all the cars in motion and Mackey was unable to get out of the way.
Dec.	10	Albert Cuzza,	Polish,	Miner,	28	M.	1		Wilmore No. 1,	Cambria,	Suffocated by smoke. The fan house caught fire, igniting the timbers in the fan drift. The three men became bewildered, and in trying to escape ran in the wrong direction and were overcome. The origin of the fire is unknown.
	10	Lawrence Sisko,	Polish,	Driver,	21	S.					
	10	Mike Rabok,	Polish,	Miner,	45	M.	1	2			

TABLE 4 —Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 20	Isaac Vich,	Swedish,	Miner,	35	M.	1	4	Nant Y Glo No. 1,	Cambria,	Fatally injured by cars. While riding on an empty trip along the main heading, to his working place, a coupling pin loosened, allowing eleven cars to run back toward the drift mouth. Vich jumped, but was caught and dragged by the cars.
31	Louis Smith,	German,	Miner,	62	S.			Gallitzin Shaft,	Cambria,	Instantly killed by fall of coal while undermining at face of pillar. He failed to set sufficient sprags.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	4	Mike Domineck,	Russian,	Miner,	27	S.	Commercial No. 3,	Cambria,	Collar bone broken by fall of coal at face of his room.
	16	John Ewan,	Slavonian,	Miner,	43	M.	Commercial No. 3,	Cambria,	Thumb cut off and small bone in left arm fractured by fall of coal while undermining at face of his room.
	19	Joseph Wasak,	Slavonian,	Stone mason,	33	M.	Miller Shaft, No. 1,	Cambria,	Leg broken by empty car near bottom of shaft.
		Dorcy King,	American,	Rockman,	35	M.	Miller Shaft, No. 1,	Cambria,	Both legs broken by cars on side track on main road.
Feb.	10	Charles Decker,	American,	Miner,	48	M.	Non Pareil,	Cambria,	Collar bone broken by fall of coal while undermining at face of room.
	12	Ralph Roberts,	American,	Driver,	26	M.	Sonman Shaft,	Cambria,	Face injured by kick from mule while hauling car along the heading.
	25	John Closkey,	Slavonian,	Trip runner,	20	S.	Pennsylvania No. 9,	Cambria,	Leg cut at knee joint by cars at bottom of shaft.
	27	Louis Segarty,	Hungarian,	Miner,	24	S.	Leahey No. 1,	Cambria,	Contusion of the shoulder by cars while riding on loaded car on the heading.
March	8	Reese Lewis,	English,	Miner,	50	M.	Sonman Shaft,	Cambria,	Collar bone broken by fall of coal while undermining at face of his room.
	10	Charles Chapel,	American,	Driver,	32	M.	Portage No. 2,	Cambria,	Spine broken by being caught between a car and a cross-bar supporting the roof of the heading.
	11	Louis Beckey,	Hungarian,	Runner,	25	S.	Commercial No. 3,	Cambria,	Leg broken by being caught between motor and empty car on side track inside of the mine.
	15	Fred Foerster,	German,	Miner,	27	S.	Sonman Shaft,	Cambria,	Leg fractured by fall of draw slate at face of his room.
	20	Albert Huppert,	American,	Runner,	22	S.	Cardiff,	Cambria,	Leg broken by cars on the heading while placing cars with the motor.
	22	Jacob Sharre,	Polish,	Miner,	35	M.	Sonman Shaft,	Cambria,	Rib broken, scalp cut, and body bruised by fall of coal at face of his room.
April	2	Felix Coon,	Italian,	Miner,	30	M.	Non Pareil,	Cambria,	Collar bone broken by car in his room.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April 7	John Scupin,	Polish,	Miner,	55	M.	Gallitzin,	Cambria,	Muscles of back and legs strained by fall of ripping at face of his room.
10	Aly Beck,	Polish,	Miner,	27	S.	Bend No. 5,	Cambria,	Arm, hand and body burned by powder while making a cartridge in his room.
10	Roy Commons,	American,	Runner,	20	S.	Nant Y Glo No. 1,	Cambria,	Arm fractured by cars on the main heading.
14	John Zonlock,	Polish,	Miner,	40	M.	Lilly No. 2,	Cambria,	Leg broken by fall of coal and bony while robbing a pillar.
23	Albert Scholl,	Polish,	Miner,	35	S.	Sonman Shaft,	Cambria,	Pelvis fractured, face cut and bruised by fall of rock at face of his room.
23	Stiney Scholl,	Polish,	Miner,	18	S.	Sonman Shaft,	Cambria,	Back bruised and skull fractured by fall of rock while working at the face.
26	Steve Drach,	Slavonian,	Miner,	25	S.	Non Pareil,	Cambria,	Back injured by fall of coal while robbing a pillar.
27	Charles Bolonge,	Hungarian,	Miner,	26	S.	Commercial No. 5,	Cambria,	Leg broken and wrist fractured by fall of roof while working at the face of a heading.
May 6	James Brown,	American,	Miner,	25	S.	Nant Y Glo No. 1,	Cambria,	Rib fractured by cars while riding in empty car on the main haulage road.
25	Erozion Delocco,	Polish,	Miner,	44	M.	Gallitzin Shaft,	Cambria,	Scalp wounded and ankle sprained by fall of rock in his room.
25	Mike Kulenc,	Hungarian,	Driver,	22	S.	Non Pareil,	Cambria,	Contusion of right foot by cars on the heading.
25	Ray Rutlidge,	American,	Brakeman,	19	S.	Non Pareil,	Cambria,	Laceration of big toe and contusion of foot by cars on the heading.
28	Adam Johns,	Austrian,	Driver,	20	S.	Commercial No. 3,	Cambria,	Hand bruised by cars on the main heading.
June 8	Gabor Forcas,	Hungarian,	Miner,	22	S.	Commercial No. 5,	Cambria,	Leg broken by punching machine falling on him at face of the heading.
11	Joseph Bender,	Polish,	Miner,	45	S.	Non Pareil,	Cambria,	Laceration of big toe by cars at face of his room.

June	15	Harry Martz,	American,	Miner,	24	S.	Sonman No. 2,	Cambria,	Ankle fractured by piece of rock falling from slip on the heading while taking the rock down.
	16	Samuel Allen,	American,	Miner,	21	M.	Sonman No. 2,	Cambria,	Lacerations of face and body by a premature explosion of dynamite while attempting to fire a shot in the bottom, with six inches of fuse at the face of his working place.
	23	Chris Frazier,	Canadian,	Trackman,	60	M.	Lackawanna No. 4,	Indiana,	Burned by dust explosion.
	23	A. L. Johnson,	American,	Mine foreman,	33	M.			
	23	Joe Orwart,	Polish,	Miner,	29	S.			
	23	Pat. Betest,	Italian,	Miner,	19	S.			
	23	John Tobin,	American,	Machine boss,	28	S.			
	23	John Kessler,	American,	Miner,	34	M.			
	23	Fred Thomas,	English,	Assistant foreman,	31	M.			
	23	Tom Batesta,	Italian,	Miner,	53	S.			
	23	Sam Koncha,	Italian,	Miner,	26	M.			
	23	Louis Koncha,	Italian,	Miner,	29	S.			
	23	Tony Martin,	Italian,	Miner,	35	M.	Lackawanna No. 4,	Indiana,	Overcome by after-damp following dust explosion.
	23	Nick Spelli,	Italian,	Miner,	44	M.			
	25	Joseph Freotts,	Italian,	Miner,	33	M.	Pennsylvania No. 7,	Cambria,	Face lacerated and arm and side bruised by fall of roof while robbing a pillar.
	26	Andrew Young,	English,	Driver,	36	M.	Sonman Shaft,	Cambria,	Middle finger and big toe cut and chest squeezed by being caught between car and post while putting a wheel on the car in the room.
July	1	John Klett,	American,	Laborer,	38	S.	Sonman Shaft,	Cambria,	Small bone in foot broken by being caught between motor and car on the main haulage road.
	1	Tony Sally,	Italian,	Miner,	26	S.	Wilmore No. 1,	Cambria,	Laceration of face, back and legs by fall of roof at face of his room.
	2	William Honeycamp,	American,	Miner,	60	M.	Bennington No. 2,	Blair,	Leg and arm broken by fall of rock while trying to wedge the rock down at face of his room.
	2	Wince Kodshak,	Polish,	Miner,	30	M.	Sonman Shaft,	Cambria,	Leg broken by fall of rock while loading car at face of his room.
	2	Angelo Pauish,	Italian,	Miner,	27	M.	Commercial No. 2,	Cambria,	Shoulders and hips bruised by fall of coal while undermining in robbing a pillar.
	6	Michal Hoahrew,	German,	Brakeman,	25	M.	Sonman Shaft,	Cambria,	Ankle crushed by cars near bottom of shaft.
	9	Martin Kenler,	Slavonian,	Miner,	42	M.	Pennsylvania No. 9,	Cambria,	Leg broken by fall of coal while undermining along the face of pillar.
	12	Charles Yukas,	Hungarian,	Miner,	32	M.	Vinton No. 6,	Cambria,	Collar bone broken by fall of coal while undermining at face of his room without the use of sprags.
	12	John Gulick,	Polish,	Trip rider,	25	M.	Sonman Shaft,	Cambria,	Two fingers and part of thumb lost by his hand being caught between roof and reel of rope which he was hauling in a car on the heading.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July 16	John Ozak,	Polish,	Miner,	37	M.	Sonman Shaft,	Cambria,	Arm broken by fall of rock at face of room.
22	John Fodorsky,	Polish,	Miner,	32	M.	Sonman Shaft,	Cambria,	Rib fractured and contusion of the abdomen by car running on him while trying to put the car on the track in his room.
24	Joseph Belchune,	Lithuanian,	Miner,	54	M.	Sonman Shaft,	Cambria,	Collar bone broken and three ribs fractured by fall of roof in his room while robbing a pillar.
26	John Gosjoe,	Polish,	Miner,	20	S.	Glen White No. 2,	Cambria,	Leg broken by fall of coal at face of his room.
26	John Bratti,	Italian,	Miner,	50	M.	Dean No. 10,	Cambria,	Leg broken by fall of slate at face of his room.
Aug. 2	John Burnot,	Slavonian,	Tipple-man,	29	S.	Commercial No. 4,	Cambria,	Leg broken by cars. Outside.
9	Stephen Hess,	German,	Footman,	22	S.	Sonman Shaft,	Cambria,	Finger on left hand cut by cars at bottom of the shaft.
13	Anthony Rovnish,	Polish,	Miner,	21	S.	Sonman Shaft,	Cambria,	Shoulder and leg broken by fall of roof at face of his room.
19	Steve Risco,	Slavonian,	Miner,	25	M.	Non Pareil,	Cambria,	Left hand blown off, face bruised and injured internally by an explosion of dynamite while removing it from shot hole at face of his room.
20	Joseph Angletus,	Lithuanian,	Miner,	58	M.	Pennsylvania No. 14,	Cambria,	Leg bruised by cars in his room.
20	Ira Smyers,	American,	Machine scraper,	23	S.	Dean No. 14,	Cambria,	Rib broken and two others fractured and small bone in foot broken by fall of coal while undermining at face of his room.
26	Thomas Hopkins,	English,	Driver,	35	M.	Lincoln,	Cambria,	Foot bruised by being caught between cars on the heading.
Sept. 10	Stephen Legal,	Polish,	Miner,	27	M.	Portage Slope No. 2,	Cambria,	Left leg fractured in two places by cars on heading.

Sept.	10	William Shaw,	American,	Miner,	27	M.	Forge Slope, No. 1,	Cambria,	Back broken by fall of rock in his room. He was ordered by mine foreman to take down the rock before loading coal.
	11	Joseph Smith,	Slavonian,	Machine runner,	28	M.	Portage Slope No. 2,	Cambria,	Right leg fractured below knee by fall of coal while undermining with machine at face of his room.
	13	Frank Chipalona,	Polish,	Miner,	25	S.	Irvona No. 5,	Clearfield,	Back injured by fall of slate at face of his room.
	23	Joseph Masnica,	Slavonian,	Miner,	17	S.	Vinton No. 1,	Cambria,	Leg broken by cars in his room.
	24	Pasqual Polaster,	Italian,	Miner,	45	M.	Delaney No. 5,	Cambria,	Foot bruised by fall of coal while working at face of his room.
	28	Louis Makari,	Hungarian,	Miner,	42	M.	Commercial No. 3,	Cambria,	Large scalp wounds by fall of coal while undermining at face of his room.
	28	John Pap,	Hungarian,	Miner,	32	M.	Priscilla No. 8,	Cambria,	Two ribs fractured by fall of bony coal while undermining at face of his room.
	28	Mike Woznock,	Polish,	Miner,	53	M.	Pennsylvania No. 10,	Cambria,	Legs broken and hip dislocated by fall of rock in his room.
Oct.	14	George Sweedro,	Hungarian,	Miner,	40	S.	Bend No. 5,	Cambria,	Hip bruised by fall of rock at face of his room.
	28	Joseph Cristoff,	Hungarian,	Miner,	34	M.	Priscilla No. 8,	Cambria,	Leg broken by fall of rock in his room. He was taking coal off the rib to straighten the road.
	28	Steve Kralosky,	Slavonian,	Driver,	32	M.	Non Pareil,	Cambria,	Hand sprained and lacerated by cars on heading.
Nov.	1	Alex. Gedoga,	Slavonian,	Miner,	23	S.	Commercial No. 3,	Cambria,	Finger badly bruised by cars on heading.
	5	Mike Cokless,	Slavonian,	Miner,	34	M.	Standard,	Cambria,	Leg broken by car near the face of his heading.
	8	Herman Beck,	American,	Miner,	32	S.	Sonman Shaft,	Cambria,	Right arm and leg broken by fall of rock near face of his room. He was trying to wedge the rock down and stepped under it to get his shovel when the rock fell on him.
	10	John Backely,	Irish,	Miner,	65	M.	Irvona No. 5,	Clearfield,	Three ribs broken and slightly bruised by fall of slate at face of his room.
	13	George Shannon,	Slavonian,	Miner,	26	M.	Pennsylvania No. 14,	Cambria,	Collar bone broken by fall of coal while undermining in his room. He was taking out a pillar.
	18	Frank Lynch,	American,	Motorman,	22	M.	Pennsylvania No. 7,	Cambria,	Abdomen crushed by cars wrecked on heading.
	18	John St. John,	Irish,	Laborer,	65	S.	Pennsylvania No. 7,	Cambria,	Arm and leg broken by cars wrecked on heading.
	18	Ralph Montuna,	Italian,	Laborer,	32	M.	Pennsylvania No. 7,	Cambria,	Shoulder bruised by cars wrecked on heading.
	23	Angelo Muska,	Italian,	Miner,	20	S.	Vinton No. 1,	Cambria,	Leg and nose broken by fall of rock at face of his room. He had been told by the assistant foreman to set props.

TABLE 5—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Nov.	29	Leonard Gross,	Italian,	Miner,	23	S.	Miller Shaft, No. 1,	Cambria,	Leg broken while assisting to handle cars at the bottom of the shaft. He had been told by the footman to let the cars alone.
	30	Charles Wahl,	German,	Miner,	49	M.	Gallitzin Shaft,	Cambria,	Laceration of the hand and thumb broken by fall of coal while undermining at face of his room.
Dec.	6	David Tobin,	American,	Trip runner,	23	M.	Delaney No. 5,	Cambria,	Leg broken and knee badly dislocated by cars wrecking. Outside.
	15	Stephen Fredel,	Slavonian,	Plane runner,	17	S.	Sonman Shaft,	Cambria,	Shin bone fractured and body bruised by cars on heading.
	16	Richard Townsend,	English,	Miner,	44	M.	Sonman Shaft,	Cambria,	Leg cut while handling steel rail.
	16	John Catic,	Hungarian,	Miner,	47	M.	Lincoln,	Cambria,	Rib fractured by fall of rock at the mouth of his room while trying to wedge the rock down.
	20	Mike Cresh,	Slavonian,	Miner,	40	M.	Nant Y Glo No. 1,	Cambria,	Back and legs bruised by cars on the rope haulage road while riding to his work. In attempting to get off he was caught and dragged.

DESCRIPTION OF FATAL ACCIDENTS

WEHRUM DISASTER

On the morning of January 23, 1909, at 7.30, an explosion of coal dust occurred in the first left, north heading in the Lackawanna No. 4 mine at Wehrum, Indiana county, operated by the Lackawanna Coal and Coke Company, which resulted in the death of twenty-one persons and the serious injury of twelve others.

At the time of the explosion the employes had commenced the day's work. Most of the men were in the mine at the time of the explosion, although no coal was being hoisted. The company men were working and most of the miners were loading the empty cars in preparation for the next day.

No person anticipated any danger, as the mine was considered to be one of the safest in the region. No explosive gas could be discovered by a safety lamp. A small feeder of gas had been found issuing from the roof in third north heading about eight days before. This gas was so feeble that it would diffuse before reaching the flame in the safety lamp, and, at times, it could not be ignited by an open light, as the miners testified at the inquest. No other traces of explosive gas could be found in the mine.

On the afternoon of January 22, Thomas Bestesta and two other Italian miners were working in the first left, north heading, and had blasted a shot in the bottom. The bottom consisted of eighteen inches of fire clay and six inches of coal, the coal being below the fire clay. They had drilled the hole six feet deep and charged it with two feet of black powder. This blast failed to break up the bottom sufficiently and Bestesta and his partners decided to use dynamite to break it up. The following morning, January 23, they placed two and one half sticks of dynamite in the hole, using no stemming. Bestesta stated at the inquest that he never used stemming with dynamite. When the shot was fired the heading was filled with flame that reached the back haulage road, five hundred feet from the face of the heading. All the coal from the north side of the mine had been taken over this road and hence fine coal was necessarily deposited along the route. The ignition of the gases from this dust caused an explosion of great violence around the bottom of the slope and shaft and extended near the face of the second south heading. A can that had contained powder was found near the face of the heading parallel to the second south heading with its top blown off. The bodies of the two men who had worked in this heading were found, one in the draw-road and the other in the second south heading. A drill auger stood in a partially drilled hole. Evidently one of the men was engaged in drilling a hole and the other in filling a cartridge from the can of powder. The ignition of the powder at the time of the explosion only can account for evidence of flame in this part of the workings.

The witnesses examined before the inquest were employed in all parts of the mine and testified to their belief in the safe condition of the mine prior to the explosion. Some of these witnesses had worked

in the mine since it was opened in 1903. No one had any knowledge of explosive gas having been found, except the small feeder in third left, north heading, mentioned before.

Mr. W. N. Johnson, superintendent, testified that he had but once seen a trace of gas in his safety lamp. He discovered the gas in a hole in the roof in one of the long wall blocks about five years ago. At that time the fan was stopped for thirteen hours.

On my visits to the mine no gas was discovered by me, and, on questioning the workmen, the answer invariably was that no gas had been seen.

Since the explosion, and on the evidence given by the superintendent of having seen a small trace of gas in the mine five years ago, I requested that fire bosses be employed to examine every working place in the mine before the men enter. My last visit to the mine was on November 12, and the fire boss report book showed that no explosive gas had been reported.

At the time of my visit, December 20, thirty-three days before the explosion, I found the mine to be in a safe and healthy condition. There was no accumulation of coal dust to cause me to be apprehensive of danger. The humidity of the air was high, as the drainage of the mine was about 1,000 gallons per minute, and this water was collected by several pumps from different parts of the mine.

It seemed to me to be impossible to have an explosion under such conditions, and yet it has proven that the blasting of the two and one-half sticks of dynamite in the coal pulverized by the previous blast of black powder, and most of the force of the dynamite blast being spent on the atmosphere, contained all the necessary requisites for causing an explosion.

It also teaches us that if carelessness or ignorance is allowed in the use and handling of explosives, there is no mine that is safe from explosions. Especially is this true in our large mines where high velocities of air course the haulage roads and trips of loaded cars are run at high speed. Very fine dust will accumulate along the roof, sides and floor of the haulage roads, no matter how vigilant we are. The best that can be done is to reduce the danger. If permissible explosives and incombustible stemming had been used with reasonable care in the Lackawanna No. 4 mine, the explosion at Wehrum would not have occurred.

On December 10, Michael Robeck and Albert Cozy, Polish miners, and Lawrence Sisco, a Polish driver, met their death by suffocation in the Wilmore No. 1 mine. At 6.55 P. M. a fire was discovered at the fan which burned into the fan drift, the fumes and smoke entering the mine. Twenty-one persons escaped by the way of the haulage road, their being twenty-four men employed in the mine. The three victims were working on the intake side of the mine and when the smoke reached them, in their effort to escape they went directly toward the fire at the inlet until, being overcome, they fell and were suffocated by the smoke. There were two ways convenient for them to have escaped, one by the way of the haulage road and the other by going over the overcast which led to the traveling way on the opposite side of the haulage road. They became bewildered and knowing the inlet opening to be the nearest point of egress from their working places they took the road that led them to their death. The origin of the fire could not be discovered.

CONDITION OF MINES

PENNSYLVANIA COAL AND COKE COMPANY

(T. H. Watkins, Receiver)

Pennsylvania Nos. 1, 7, 16, 9, 14 and 19.—In fair condition. Ventilation and drainage reasonably fair.

Pennsylvania No. 2.—The traveling way was not in good condition. On my last visit to the mine preparations were being made to improve it. Ventilation good.

Pennsylvania No. 10.—The ventilation in some parts of the mine was not sufficient. The mine is very extensive and work is being done to reduce some of the friction on the air. If this does not sufficiently improve the ventilation, they will be compelled to sink a shaft near the face of the workings. Drainage good.

COMMERCIAL COAL MINING COMPANY

Commercial Nos. 2, 3, 4 and 5.—In good condition. No. 2 mine is about exhausted and during the year has been employing less than ten men.

No. 4 mine fan forces the air into the mine, while No. 3 mine fan exhausts the air from the mines; hence the fans assist each other.

PORTAGE COAL MINING COMPANY

Portage Nos. 2 and 4.—Ventilation and drainage good.

Portage No. 3.—Idle during the year.

SONMAN SHAFT COAL COMPANY

Sonman Shaft.—This mine was in a very unsatisfactory condition during the year. As the workings were extended it became necessary to ask the Chief of the Department of Mines to send two other Inspectors to advise with me concerning the health and safety of persons employed in this mine. The result was that information was made against the Superintendent and Mine Foreman, charging them with violating the Mining Law, and an injunction was asked to restrain them from operating the mine unless improvements be made forthwith. The improvements were made as requested.

SHOEMAKER COAL MINING COMPANY

Wilmore No. 1.—Ventilation and drainage in fair condition.

TUNNEL COALING COMPANY

Tunnel No. 1.—In very fair condition.

Tunnel No. 2.—Only worked the latter part of the year. In fair condition.

VINTON COLLIERY COMPANY

Vinton Nos. 1 and 4.—Ventilation, drainage and general conditions good.

Vinton Nos. 2 and 3.—Idle.

Vinton No. 5.—Worked the first part of the year and was abandoned in February. In the future the coal will be worked from Vinton No. 6 mine.

NANT Y GLO COAL MINING COMPANY

NantYGlo No. 1.—In fair condition except that the ventilation needs to be divided into two currents. They are working day and night shifts to meet the demands for their coal.

BIG BEND COAL MINING COMPANY

NonPareil No. 1.—In good condition.

ALTOONA COAL AND COKE COMPANY

Delaney No. 5.—The ventilation was weak in some parts of the mine. Drainage and general conditions good.
Horseshoe.—In fair condition.
No. 6 Mine.—Idle.

FORGE COAL MINING COMPANY

Forge Slope No. 1.—During the fore part of the year the ventilation on one side of the mine was weak. The latter part of the year it was improved.

TAYLOR AND McCOY COAL AND COKE COMPANY

Gallitzin Shaft.—Ventilation was not satisfactory. Too many men were employed in one of the currents of air. Preparations were being made to improve this condition. Drainage good.

CRESSON AND CLEARFIELD COAL AND COKE COMPANY

Dean No. 8.—Idle during greater part of year. In good condition when visited.
Dean No. 9.—When visited less than ten men were working.
Dean No. 10.—In very fair condition.

W. H. PIPER AND COMPANY

Sonman No. 2.—Ventilation and drainage good.
Sonman No. 4.—Did not come under the law and was not visited.

MILLER COAL COMPANY

Miller Shaft No. 1.—Ventilation very fair. Drainage fair. Much trouble was experienced to keep roadways in fair condition, caused by water working through soft fire clay bottom.

GEORGE PEARCE AND SONS

Excelsior No. 1.—In fair condition.
Excelsior No. 2.—In good condition.

LACKAWANNA COAL AND COKE COMPANY

Lackawanna No. 3.—Idle.
Lackawanna No. 4.—Ventilation, drainage and roadways in good condition on each of my visits. On June 23 an explosion of coal dust occurred, a description of which is given under the head of Description of Fatal Accidents.

IRVONA COAL AND COKE COMPANY

Irvona No. 5.—Ventilation feeble at the working places. Drainage good.

Irvona No. 10.—Ventilation fair. Drainage poor.

LEAHEY COAL MINING COMPANY

Leahey No. 1.—Ventilation fair. Drainage good.

Leahey No. 2.—Ventilation and drainage in very fair condition.

LILLY COAL MINING COMPANY

Lilly No. 2.—In very good condition. Ventilation and drainage good.

GLEN WHITE COAL AND LUMBER COMPANY

Glen White No. 1.—Idle.

Glen White No. 2.—In very fair condition.

ESTEP BROTHERS COAL MINING COMPANY

Ivory Hill.—Ventilation fair. On my last visit I requested that the ventilation be split into two separate currents to comply with the law. Drainage good.

BAKER WHITELY COAL COMPANY

Ivy Ridge.—In fair condition.

PENKER COAL COMPANY

Penker No. 1.—In fair condition. Ventilation and drainage fair.

PRINCESS COAL MINING COMPANY

Priscilla No. 6.—Ventilation poor at the faces. Drainage good.

Priscilla No. 8.—Ventilation and drainage good.

ANDERSEN COAL MINING COMPANY

Peerless No. 1.—In good condition.

Peerless No. 2.—In fair condition.

Peerless No. 4.—The means of ingress and egress to this mine were not in a lawful condition. At my request the mine was closed down to improve the condition so as to comply with the law. Ventilation poor.

BENS CREEK-SONMAN COAL COMPANY

Bens Creek Shaft.—In fair condition. Ventilation fair. Drainage good.

A. SMITH AND COMPANY

Superior No. 1.—Ventilation poor at the working faces on my last visit, but work was being done that would improve it. Drainage good.

Superior Nos. 2 and 3.—Idle.

Superior No. 4.—Not under the requirement of the law at my last visit. At my request it was closed down to make improvements.

BLAIN RUN COAL COMPANY

Blain Run No. 1.—In good condition.

PLYMOUTH COAL MINING COMPANY

Plymouth No. 1.—In fair condition. Ventilation fair and drainage good.

CARDIFF COAL COMPANY

Cardiff.—Ventilation very fair for the number of men employed. The number of men inside had been reduced at time of inspection. The ventilation, however, will not comply with the law when the mine is worked to its full capacity. Drainage good.

SPRINGFIELD COAL MINING COMPANY

Springfield No. 1.—Ventilation and drainage good.

LINCOLN COAL COMPANY

Lincoln Mine.—Ventilation at the working faces very poor. They are installing a fan to take the place of the furnace, which will improve the ventilation. Drainage good.

S. S. HEGARTY'S SONS

Oakland No. 2.—In fair condition.

Oakland No. 3.—The ventilation weak on one side of the mine. I requested that a door be erected in place of a canvas sheet that had been hung on the main heading.

KISKIMINETAS COAL COMPANY

Kiskiminetas No. 2.—Ventilation and drainage good.

STANDARD COAL COMPANY

Standard No. 1.—Ventilation and drainage poor in this mine until the latter part of the year. There was some improvement on my last visit.

PURITAN COAL MINING COMPANY

Puritan No. 1.—Ventilation poor at the working faces. An auxiliary fan is used back in the mine. Some of the return air leaks into the intake and is continually circulating in the working faces. I have demanded an improvement in the ventilation.

Puritan No. 2.—Ventilation was very poor on my last visit. The management promised to install a fan to take the place of the furnace.

AETNA COAL MINING COMPANY

Aetna No. 1.—Ventilation good. Drainage fair. I have requested another opening to be made for egress, as the present second opening does not comply with the law.

JOHN A. LEAP

Plane.—On my last visit the ventilation was fair, except in the lower heading, where they were about to cut through to old workings. Drainage fair.

BELLFIELD COAL AND COKE COMPANY

Bend No. 5.—Ventilation very weak in some of the working places. I requested that it be improved. A new furnace was built to improve the condition. Drainage good.

HARBISON-WALKER REFRACTORIES COMPANY

Cambria No. 1.—In good condition.

BELLS MILL COAL COMPANY

Bells Mill.—In fair condition for the number of men employed. They had less than ten men. A fan will be installed as the number of men is increased. Drainage on the haulage roads was good.

E. W. TURLEY COMPANY

Wister No. 3.—In fair condition.

FEDERAL COAL AND COKE COMPANY

Knickerbocker No. 4.—Idle until the latter part of the year. Ventilation and drainage good.

Knickerbocker No. 5.—Ventilated by the same current of air as No. 4 mine, which is not satisfactory. At the time of my visit eighteen men were employed inside. I requested that the ventilation be improved before more men were employed. Drainage good.

BENNINGTON COAL COMPANY, INCORPORATED

Bennington No. 2.—In fair condition.

KELLY AND FLANAGAN

Kelly No. 1.—In good condition.

J. E. SCHMITTLE

Pleasant Hill.—In fair condition.

BIG FOUR COAL MINING COMPANY

Big Four No. 1.—This is Big Bend No. 1 mine re-opened. In good condition.

M. J. LEISENRING COMPANY

Sonman No. 1.—Ventilation and drainage good.

MAX FRICK'S ESTATE

Frick's No. 2.—Both openings in good condition. Ventilation good; drainage fair.

F. A. GARMAN

Wopsy.—Abandoned.

HARRIS COLLIERY COMPANY

Mount Verde.—Only worked the two last months of the year and was not visited.

MUNSTER COAL COMPANY

Eleanor.—Taking the pillars out and only working a few men at present.

ASHVILLE COAL AND COKE COMPANY

Ashville.—Idle the greater part of the year. When visited it was in good condition.

BLACKLICK MINING COMPANY

Big Bend No. 6.—A new mine and has not been visited.

BRADLEY AND REED

Bradley No. 1.—Worked during the latter part of the year, but was not visited.

Bradley No. 3.—Idle.

AULD RUN COAL COMPANY

Auld Run.—Only worked at the end of the year.

JOSEPHINE COAL AND COKE COMPANY

Josephine.—Idle.

KOKOMO COAL COMPANY

Kokomo.—Idle.

PRESTON COAL MINING COMPANY

Oakland No. 4.—Did not come under the law.

IMPROVEMENTS

PENNSYLVANIA COAL AND COKE COMPANY

(T. H. Watkins, Receiver)

Pennsylania Nos. 7 and 16.—Improved in ventilation and drainage by the construction of a water course to the surface, by the straightening of the airway from the fan, and by the building of two overcasts to divide the ventilation into separate air currents.

Pennsylvania No. 9.—Two overcasts were built to divide the air currents.

Pennsylvania No. 14.—The seven-foot Stine disk fan was replaced by an improved Stine fan 12 x 5 x 3.5 feet. A shaft, 6 x 8 feet and 65 feet deep, was sunk for egress and ventilation near the hill workings.

SONMAN SHAFT COAL COMPANY

Sonman Shaft.—Ventilation improved by facing the stoppings with cement and making two new overcasts. Shelter holes were constructed along the mechanical haulage roads. Connection was made with Bens Creek Shaft for egress by a passageway, 5 x 5 and 600 feet long, along the Bens Creek side of the line of the barrier pillar between Bens Creek and Sonman Shafts.

VINTON COLLIERY COMPANY

Vinton Nos. 1, 4 and 6.—Ventilation in Vinton Nos. 1 and 4 mine improved by the building of two new overcasts, and in No. 6 mine by the building of one overcast to divide the air into separate currents.

FORGE COAL MINING COMPANY

Forge Slope No. 1.—A new shaft was sunk for ventilation and pumpage.

GEORGE PEARCE AND SONS

Excelsior Nos. 1 and 2.—Two new overcasts were built in Excelsior No. 2 to divide the air into separate currents.

BAKER WHITELY COAL COMPANY

Ivy Ridge No. 1.—Another opening was made for egress by driving a room into a drift that had been previously made. One new overcast was built to split the air.

PENKER COAL COMPANY

Penker No. 1.—Ventilation was improved by driving a heading to connect the air shaft with the working faces, thereby shortening the air course.

ANDERSEN COAL MINING COMPANY

Peerless No. 4.—Made a second opening for egress by sinking a shaft, 5 x 5 and 15 feet deep. From this point it sloped for a distance of 25 feet, making a depth in all to the coal, of 23 feet.

J. BLAIR KENNERLY

Beccaria.—Another opening was made for egress by driving a room into a drift that had been previously made. A furnace was constructed near the face of the workings and a shaft, 6 x 6 and 30 feet deep, was sunk for it.

CARDIFF COAL COMPANY

Cardiff.—A separate traveling way was made from the face of the workings a distance of about 4,000 feet, by taking down the roof of the back heading, making it not less than five feet in height.

LINCOLN COAL COMPANY

Lincoln.—An electric haulage and electric mining machines were installed. The second opening was improved by taking down some roof and retimbering it.

PURITAN COAL MINING COMPANY

Puritan Nos. 1 and 2.—The stables near the bottom of the shaft were improved by the construction of cement walls.

FEDERAL COAL MINING COMPANY

Knickerbocker No. 5.—The main haulage road was improved by cleaning and relaying the road.

Prosecutions for Violations of the Mining Laws

On February 27, Joe Franko and Andy Birto, Hungarian miners, pleaded guilty to the charge of passing a danger board in the Cardiff mine of the Cardiff Coal Company on February 20. They paid the costs, amounting to about $84, and sentence was suspended.

On October 5, James Strachan, Superintendent, and W. G. Strachan, Mine Foreman, at Sonman Shaft of the Sonman Shaft Coal Company, pleaded guilty to the charge of violating the Mining Law. They were ordered to pay the costs, and sentence was suspended.

On December 23, Andy Mudge, Hungarian miner, pleaded guilty to the charge of passing a danger board in Vinton No. 6 mine of the Vinton Colliery Company, before the fire boss had returned to make his report. He was bound over in $200 bail for his appearance at court.

Mine Foremen's Examinations

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the LeVan Building, Altoona, April 6, 7, 8 and 9.

The Board of Examiners was composed of Joseph Williams, Mine Inspector; F. P. McFarland, Superintendent; and John M. Jones, Mine Foreman.

There were twenty-eight applicants for certificates as Mine Foremen and one applicant for certificate as Fire Boss. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

Second Grade

Charles A. Brown, Blandburg; Robert Robertson, Scalp Level; M. J. Bracken, Gallitzin; Thomas Hogarth, Wehrum.

ELEVENTH DISTRICT

FAYETTE AND WESTMORELAND COUNTIES

Scottdale, Pa., February 21, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir:—

In compliance with the Acts of Assembly, approved May 15, 1893, and April 14, 1903, I have the honor to transmit herewith my annual report as Inspector of Mines for the Eleventh Bituminous District for the year ending December 31, 1909.

I was transferred to this district July 1, 1909, from the Sixth District.

The report contains the usual tables of statistics, brief descriptions of the condition of the mines, the most important improvements, report of the annual examination of applicants for mine foremen and fire boss certificates, and a report of the legal proceedings.

Respectfully submitted,

D. R. BLOWER,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	71
Number of mines in operation,	65
Number of tons of coal shipped to market,	919,559
Number of tons used at mines for steam and heat,	195,475
Number of tons sold to local trade and used by employes,	76,816
Number of tons used in the manufacture of coke,	6,603,135
Number of tons of coal produced,	7,794,985
Number of tons of coke produced,	4,497,024
Number of coke ovens,	10,002
Number of coke ovens in operation,	9,187
Number of tons of coal produced by pick mining,	6,815,682
Number of tons produced by compressed air machines,	622,112
Number of tons produced by electrical machines,	357,191
Number of persons employed inside of mines,	6,132
Number of persons employed outside, including coke workers,	3,634
Number of persons employed at manufacture of coke,	2,419
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	44
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	389,749
Number of persons employed per fatal accident inside,	307
Number of persons employed per non-fatal accident inside,	139
Number of persons employed per fatal accident outside,	3,634
Number of persons employed per non-fatal accident outside,	3,634
Number of wives made widows,	19
Number of children made orphans,	41
Number of steam locomotives used inside of mines,	—
Number of steam locomotives used outside,	35
Number of compressed air locomotives used inside,	8
Number of compressed air locomotives used outside,	—
Number of electric motors used inside,	7
Number of electric motors used outside,	3
Number of fans in use,	55
Number of furnaces in use,	7
Number of gaseous mines in operation,	27
Number of non-gaseous mines in operation,	38
Number of new mines opened,	4
Number of old mines abandoned,	—

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	4,980,127
Washington Coal and Coke Company,	1,320,773
W. J. Rainey,	377,106
Westmoreland Coal Company,	329,462
Mount Pleasant Coke Company,	118,592
Mount Pleasant Connellsville Coke Company,	81,626
Veteran Coke Company,	71,148
Clare Coke Company,	64,151
Cochran Brothers,	48,487
B. F. Keister and Company,	46,592
Sunshine Coal and Coke Company,	42,100
Youghiogheny and Ohio Coal Company,	40,908
Magee Coke Company,	37,980
Brownfield-Connellsville Coke Company,	32,455
Bessemer Coke Company,	32,335
Echard Coal and Coke Company,	31,773
American Sheet and Tin Plate Company,	31,335
Brush Run Coal and Coke Company,	26,410
Peerless-Connellsville Coke Company,	22,156
Kaine and Wilkey Coke Company,	15,175
Marion Coke Company,	13,737
Perry Coke Company,	12,248
Connellsville Mutual Coke Company,	11,169
Majestic Coke Company,	7,140
Total,	7,794,985

Production by Counties

Westmoreland,	5,755,053
Fayette,	2,039,932
Total,	7,794,985

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	13	.....	13	29	1	30	383,087	171,728	4,051	2,415	6,466	312	.....	139	2,415
Washington Coal and Coke Co.,	5	.....	5	2	.....	2	264,155	660,387	846	469	1,315	169	.....	423	.....
Westmoreland Coal Co.,	.....	1	1	7	.....	7	.....	47,066	328	50	378	.....	50	47	.....
Mount Pleasant Connellsville Coke Co.,	1	.....	1	1	.....	1	81,626	81,626	60	84	144	60	.....	60	.....
B. F. Keister and Co.,	.....	.....	.....	1	.....	1	.....	46,592	25	20	45	.....	.....	25	.....
Sunshine Coal and Coke Co.,	.....	.....	.....	2	.....	2	.....	21,050	33	29	62	.....	.....	16	.....
Youghiogheny and Ohio Coal Co.,	1	.....	1	2	.....	2	40,908	20,454	73	27	100	73	.....	37	.....
Miscellaneous Companies,	.....	.....	.....	.....	.....	.....	.....	.....	716	540	1,256	.....	.....	.....	.....
Totals and averages for district,	20	1	21	44	1	45	389,749	177,159	6,132	3,634	9,766	307	3,634	139	3,634

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	1	----	----	----	----	----	1	----	1	1	----	2	6	30.00
Falls of roof,	----	----	----	1	----	----	3	----	----	1	1	2	8	40.00
Mine cars,	1	1	----	----	----	1	----	1	1	----	----	----	5	25.00
Falling into shafts,	----	----	----	----	1	----	----	----	----	----	----	----	1	5.00
Totals,	2	1	----	1	1	1	4	1	2	2	1	4	20	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	1	----	----	1	100.00
Totals,	----	----	----	----	----	----	----	----	----	1	----	----	1	100.00
Grand totals inside and outside,	2	1	----	1	1	1	4	1	2	3	1	4	21	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Outside														
Falls of coal,	----	----	----	----	----	----	----	1	----	----	----	1	2	4.55
Falls of slate,	1	1	1	----	1	2	1	3	2	----	1	----	13	29.54
Falls of roof,	1	----	----	2	----	1	----	----	----	----	----	----	4	9.09
Mine cars,	----	----	1	----	1	1	2	1	2	1	2	1	12	27.27
Explosions of powder and dynamite,	----	----	----	----	1	----	----	----	----	----	----	----	1	2.27
Blasts, premature and otherwise,	----	1	----	----	----	----	----	----	----	----	----	----	1	2.27
Mules,	----	----	----	----	----	1	----	----	----	----	----	----	1	2.27
Machinery,	----	----	----	----	----	----	----	----	2	----	----	----	2	4.55
Miscellaneous,	----	----	1	----	2	----	1	2	1	1	----	----	8	18.19
Totals,	2	2	3	2	5	5	4	7	7	2	3	2	44	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	1	----	----	----	----	1	100.00
Totals,	----	----	----	----	----	----	----	1	----	----	----	----	1	100.00
Grand totals inside and outside.	2	2	3	2	5	5	4	8	7	2	3	2	45	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	----	----	1	----	----	3	----	2	1	----	1	9
Machine loaders,	----	----	----	----	----	----	----	----	----	1	----	----	1
Drivers and runners,	----	1	----	----	1	----	----	----	----	----	----	1	3
Company men,	1	----	----	----	----	1	1	1	----	----	1	2	7
Totals,	2	1	----	1	1	1	4	1	2	2	1	4	20
Outside													
Dumpers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Totals,	----	----	----	----	----	----	----	----	----	1	----	----	1
Grand totals inside and outside,	2	1	----	1	1	1	4	1	2	3	1	4	21

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,	----	----	----	----	----	----	----	1	----	----	----	----	1
Miners,	1	2	1	2	----	1	1	3	4	----	1	1	17
Machine runners,	----	----	----	----	----	----	----	----	1	----	----	----	1
Machine loaders,	----	----	----	----	1	1	----	1	1	1	1	----	6
Drivers and runners,	----	----	1	----	1	2	2	1	----	----	----	1	8
Company men,	1	----	1	----	3	1	1	1	1	1	1	----	11
Totals,	2	2	3	2	5	5	4	7	7	2	3	2	44
Outside													
Company men,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	----	----	----	----	----	----	----	1	----	----	----	----	1
Grand totals inside and outside,	2	2	3	2	5	5	4	8	7	2	3	2	45

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	----	----	----	----	----	1	----	----	----	----	2
German,	----	----	----	----	----	----	----	----	----	----	----	1	1
Polish,	----	----	----	----	----	----	2	----	1	----	----	----	3
Hungarian,	----	----	----	----	----	1	----	----	----	----	1	----	2
Italian,	----	----	----	----	----	----	----	----	1	1	----	1	3
Slavonian,	1	1	----	1	----	----	2	----	----	2	----	2	9
Bohemian,	----	----	----	----	1	----	----	----	----	----	----	----	1
Totals,	2	1	----	1	1	1	4	1	2	3	1	4	21

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	----	----	2	1	1	2	1	----	----	1	9
English,	----	----	1	----	----	----	----	1	1	----	----	----	3
Welsh,	----	----	----	----	----	1	----	----	----	----	----	----	1
Scotch,	----	----	----	----	----	----	----	----	1	----	----	----	1
German,	----	----	----	----	1	----	----	1	----	----	----	----	2
Polish,	1	----	----	----	----	----	1	1	2	----	----	----	5
Hungarian,	----	1	1	----	----	----	1	----	----	----	----	----	3
Italian,	----	----	----	----	1	1	----	----	----	----	1	----	3
Slavonian,	----	1	----	2	----	----	1	2	1	1	2	----	10
Austrian,	----	----	----	----	----	1	----	1	----	----	----	1	3
Bohemian,	----	----	1	----	1	1	----	----	1	1	----	----	5
Totals,	2	2	3	2	5	5	4	8	7	2	3	2	45

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
H. C. Frick Coke Co.																
Alverton No. 1,	Slope,	Non-gas.,	Fan,	20	6	5.5	74	1.5	Guibal,	Steam,		3	126,410	58,880	127,000	73
Alverton No. 2,	Drift,	Non-gas.,	Fan,	12	3.8	3	112	.5	Brazil,	Steam,		1	43,460	21,840	46,360	56
Alverton No. 3,	Drift,	Non-gas.,	Fan,	10	3.3	2.5	80	.2	Guibal,	Steam,		1	33,120	18,900	35,120	23
Brinkerton,	Drift,	Non-gas.,	Fan,	20	6	5	58	.6	Vulcan,	Steam,		3	94,600	51,240	96,000	106
Buckeye,	Slope,	Gaseous,	2 Fans,	16	4.5	3	98	1.5	Brazil,	Steam,		3	112,240	50,600	114,240	92
				16	4	3.8	94	1.1	Vulcan,	Electricity,						
Calumet,	Shaft,	Gaseous,	Fan,	20	6	6	82	1.8	Vulcan,	Steam,		5	118,420	61,140	119,600	131
Central,	Slope,	Gaseous,	Fan,	16	7	5	92	1.4	Vulcan,	Steam,		5	89,910	48,790	91,000	134
Chambers,	Drift,	Non-gas.,	Fan,	12	3.8	3	84	.5	Brazil,	Steam,		2	50,760	36,960	53,760	73
Coalbrook,	Slope,	Gaseous,	Fan,	12	3.5	3.5	98	.3	Brazil,	Steam,		1	25,200	17,050	*24,200	49
Enterprise,	Drift,	Non-gas.,	Natural,									1	16,660	13,800	16,660	15
Hecla No. 1,	Shaft,	Gaseous,	Fan,	18	5.6	5	90	1.8	Vulcan,	Steam,		3	109,800	58,010	110,900	145
Hecla No. 2,	Shaft,	Gaseous,	Fan,	30	8.6	7.6	66	2.8	Vulcan,	Steam,		5	170,250	109,820	172,250	187
Hecla No. 3,	Shaft,	Gaseous,	Fan,	15	7.6	7	104	1	Capell,	Steam,		5	144,600	94,000	146,600	180
Henry Clay,	Slope,	Gaseous,	Fan,	12	3.8	3	78	.2	Brazil,	Steam,		3	27,100	21,040	27,900	32
Mammoth Shaft,	Shaft,	Gaseous,	Fan,	25	8	7	88	3	Vulcan,	Steam,		4	123,600	89,430	124,600	185
Mammoth Slope,	Slope,	Gaseous,	Fan,	16	4.5	4	102	1.6	Vulcan,	Steam,		2	51,300	38,280	53,300	81
Marguerite,	Slope,	Gaseous,	Fan,	16	10.5	7.5	104	1.5	Capell,	Steam,		6	190,380	72,210	193,338	215
Mullen,	Slope,	Non-gas.,	Fan,	12	3.2	3.5	40	.1	Guibal,	Steam,		1	13,000	7,020	14,000	22
Mutual,	Slope,	Gaseous,	Fan,	15	5	5	76	1	Guibal,	Steam,		3	81,000	48,600	82,900	106
Painter,	Drift,	Non-gas.,	Fan,	16	4.7	4.5	56	.2	Vulcan,	Steam,		2	39,770	12,430	40,670	16

*There are a great many surface breaks through which a good deal of the air current is lost.

Rist,	Slope,	Non-gas.,	Fan,	16	6	4.5	86	1	Vulcan,	Steam,		2	71,400	30,060	73,400	46
South West "A,"	Shaft,	Gaseous,	Fan,	25	8	7	64	1.5	Vulcan	Steam,		6	266,500	109,500	267,500	220
South West "B,"	Shaft,	Gaseous.	Fan,	20	6	5	66	1	Guibal,	Steam,		2	47,520	38,600	48,420	59
South West "King,"	Drift,	Non-gas.,	Fan,	12	3.7	3	23		Johnston,	Steam,		1	6,300	3,500	6,900	12
South West No. 2,	Slope,	Gaseous,	Fan,	20	6	7	54	.8	Vulcan,	Steam,		3	89,200	48,300	90,300	102
South West No. 3,	Drift,	Gaseous,	Fan,	12	3.5	3.3	92	.4	Robinson,	Steam,		2	49,420	25,120	50,000	86
South West No. 4,	Drift,	Gaseous,	Fan,	20	6	5.8	64	1.4	Vulcan,	Steam,		4	112,900	51,660	114,900	66
Standard Shaft No. 2,	Shaft,	Gaseous,	Fan,	26	7	7	81	2.4	Capell,	Steam,		11	272,940	207,100	279,800	354
Standard Shaft No. 3,	Shaft,	Gaseous,	Fan,	25	9	7.3	64	2.2	Guibal,	Steam,		3	71,800	45,000	72,800	76
Standard Slope,	Slope,	Gaseous,	Fan,						Murphy,	Steam,						
Sterling, *	Drift,	Non-gas.,	Fan,	6	4	1.5						1	3,840	3,840	3,900	9
Summit,	Drift,	Non-gas.,	Natural,									1	45,920	10,920	47,600	19
Tip Top,	Drift,	Non-gas.,	Fan,	12	3.8	3	84	.2	Brazil,	Steam,		4	105,000	76,810	106,000	157
United,	Shaft,	Gaseous,	Fan,	20	6	6	64	1.9	Guibal,	Steam,		2	57,660	29,200	58,000	70
Valley,	Drift,	Non-gas.,	2 Fans,	12	3.8	3	74	.2	Brazil,	Steam,						
				12	3.8	3	104	.3	Brazil,	Steam,						
White,	Drift,	Non-gas.,	Fan,	12	3.8	3	94	.4	Vulcan,	Steam,		3	34,300	14,740	35,300	52
Washington Coal and Coke Co.																
Washington No. 1,	Shaft,	Gaseous,	Fan,	25	5.6	7.8	64	2	Vulcan,	Steam,		9	177,200	108,050	177,200	360
Washington No. 2,	Slope,	Gaseous,	2 Fans,	15	7.5	7.5	112	1.8	Clifford,	Steam,		10	225,250	143,360	225,250	274
				16	8	8	88	2	Capell,	Steam,						
Washington No. 3,	Slope,	Gaseous,	Fan,	20	7	7	80	2	Brazil,	Steam,		3	69,360	42,810	69,360	65
W. J. Rainey																
Acme,	Shaft,	Gaseous,	Fan,	9	7	4	180	1.5	Capell,	Steam,		2	74,360	35,400	75,460	130
Grace,	Slope,	Non-gas.,	Fan,	14	4	4	80	.6	Guibal,	Steam,		1	54,640	23,040	55,640	60
Union,	Drift,	Non-gas.,	Fan,	8	8	1.6	250	.7	Stine,	Gas,		2	8,360	7,080	8,360	20
Westmoreland Coal Co.																
Magee,	Slope,	Non-gas.,	Fan,	16	6	8	78	.3		Steam,		4	127,490	98,550	128,490	308
Mount Pleasant Coke Co.																
Boyer No. 1,†	Drift,	Non-gas.,	Fan,									1	9,360	9,360	9,360	13
Boyer No. 2,	Slope,	Non-gas.,	Fan,	12	4.1	3	82	.4	Brazil,	Steam,		2	57,800	29,240	58,900	42
Mount Pleasant Connellsville Coke Co.																
Mount Pleasant,	Shaft,	Gaseous,	Fan,	16	6	5	56	.2	Clifford,	Steam,		2	68,130	27,120	68,130	55
Veteran Coke Co.																
Veteran,	Drift,	Non-gas.,	Fan.	12	3.8	3.6	100	.2	Brazil,	Steam,		1	25,200	16,380	26,300	44
Clare Coke Co.																
Clare,	Drift,	Non-gas.,	Fan.	12	3.8	3	56		Cole,	Steam,		1	22,200	21,320	22,200	40

*Did not come under the law.
†Ventilated by fan at Veteran mine.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Cochran Brothers																
Spring Grove,	Drift,	Non-gas.,	Furnace,								30	1	8,000	8,000	9,600	30
B. F. Keister and Co.																
Franklin,	Drift,	Non-gas.,	Furnace,								24	1	16,300	8,100	17,500	22
Sunshine Coal and Coke Co.																
Hester,	Drift,	Non-gas.,	Furnace,								20	1	17,000	9,360	17,920	21
Youghiogheny and Ohio Coal Co.																
Osborne No. 1,	Slope,	Non-gas.,	Fan,	6	1.4	2.2	385		Clark,	Electricity,		1	47,880	13,400	49,880	17
Osborne No. 2,	Drift,	Non-gas.,	Fan,	6	1.4	2.2	390		Clark,	Electricity,		1	38,400	14,700	39,900	19
Magee Coke Co.																
Magee,	Shaft,	Non-gas.,	Fan,	15	5	4.5	46	.2	Brazil,	Steam,		2	31,850	18,200	32,970	25
Brownfield-Connellsville Coke Co.																
Myers,	Slope,	Non-gas.,	Fan,	5	1.5	2	190	.1	Boston,	Steam,		1	5,390	5,280	5,390	23
Bessemer Coke Co.																
Humphreys,	Slope,	Gaseous,	Fan,	14	4.4	4	76	.3	Guibal,	Steam,		2	58,800	23,870	59,700	41

Echard Coal and Coke Co. Murphy,	Drift,	Non-gas.,	Fan,	12	4	3	56	.1	Brazil	Steam,		2	43,200	14,400	45,200	31
American Sheet and Tin Plate Co. Scottdale,	Drift,	Non-gas.,	Fan,	12	3	3	108	.3	Kinney,	Electricity,		1	28,800	13,780	29,900	26
Brush Run Coal and Coke Co. Brush Run,	Slope,	Non-gas.,	Furnace,								24	1	15,750	5,390	15,750	10
Peerless-Connellsville Coke Co. Carolyn,	Drift,	Non-gas.,	Furnace,								30	1	18,060	5,040	18,060	20
Kaine and Wilkey Coke Co. Anica,	Drift,	Non-gas.,	Fan,	12	3.5	3.5	56		Brazil,	Steam,		2	25,200	16,800	26,800	20
Marion Coke Co. Marion,	Drift,	Non-gas.,	Natural,									1	15,400	14,400	*14,400	*10
Perry Coke Co. Martin,	Drift,	Non-gas.,	Furnace,								20	1	11,600	9,120	11,160	16
Connellsville Mutual Coke Co. Love,	Drift,	Non-gas.,	Furnace,								16	1	9,450	9,180	9,450	18
Majestic Coke Co. Bethney,	Drift,	Non-gas.,	Natural,									1	8,000	7,500	8,900	11

*There are a great many surface breaks through which a good deal of the air current is lost.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Height of Seam in Inches: Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
H. C. Frick Coke Co.,	Marguerite,	Slope,	Gaseous,	2	Compressed Air,	Pittsburg,	84	96	82	11,102
Washington Coal and Coke Co.,	Washington No. 1,	Shaft,	Gaseous,	15	Compressed Air,	Pittsburg,	86	96	82	295,650
	Washington No. 2,	Slope,	Gaseous,	15			86	96	82	295,650
	Washington, No. 3,	Slope,	Gaseous,	1			86	96	82	19,710
Totals,				31						611,010
Westmoreland Coal Co.,	Magee,	Slope,	Non-gas.,	6	Electricity,	Pittsburg,	81	84	78	316,283
Youghiogheny and Ohio Coal Co.,	Osborne No. 1,	Slope,	Non-gas.,	2	Electricity,	Pittsburg,	102	102	102	40,908
	Osborne No. 2,	Drift,	Non-gas.,	2	Electricity,	Pittsburg,	102	102	102	
Totals,				4						40,908
Grand totals,				43						979,303

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co.						
Alverton Nos. 1 and 3,	Westmoreland,			S. B. Marton,	Alverton,	Pennsylvania
Alverton No. 2,	Westmoreland,			S. B. Marton,	Alverton,	Pennsylvania
Brinkerton,	Westmoreland,			J. H. Bitz,	Greensburg,	Pennsylvania
Buckeye,	Westmoreland,			W. S. Ramsey,	Stauffer,	B. and O. and Penna.
Calumet,	Westmoreland,			W. M. McAlister,	Calumet,	Pennsylvania
Central,	Westmoreland,			H. G. Brown,	Tarr,	Pennsylvania
Chambers,	Westmoreland,			C. J. Maher,	Greensburg,	Pennsylvania
Coalbrook,	Fayette,			R. D. Keedy,	Moyer,	Pennsylvania
Enterprise,	Westmoreland,			S. B. Marton,	Alverton,	Pennsylvania
Hecla Nos. 1 and 3,	Westmoreland,			A. H. Pollins,	Southwest,	Pennsylvania
Hecla No. 2,	Westmoreland,			H. L. Henderson,	Trauger,	Pennsylvania
Henry Clay,	Fayette,			J. M. Shields,	Broad Ford,	Baltimore and Ohio
Mammoth Shaft,	Westmoreland,			F. K. Drill,	Mammoth,	Pennsylvania
Mammoth Slope,	Westmoreland,			F. K. Drill,	Mammoth,	Pennsylvania
Marguerite,	Westmoreland,			C. J. Maher,	Greensburg,	Pennsylvania
Mullen,	Westmoreland,	W. H. Clingerman,	Scottdale,	W. S. Ramsay,	Stauffer,	Baltimore and Ohio
Mutual,	Westmoreland,			Robert Ramsay,	United,	Pennsylvania
Painter,	Fayette,			Calvin Hesse,	Scottdale,	Baltimore and Ohio
Rist,	Fayette,			James Lynch,	Broad Ford,	Baltimore and Ohio
South West "A" and "B,"	Westmoreland,			J. A. Cowan,	Mount Pleasant,	Pennsylvania
South West "King,"	Westmoreland,			J. A. Cowan,	Mount Pleasant,	Pennsylvania
South West No. 2,	Westmoreland,			H. G. Lightcap,	Mount Pleasant,	Pennsylvania
South West Nos. 3 and 4,	Westmoreland,			B. B. Boyd,	Tarr,	Pennsylvania
Standard Shaft Nos. 2 and 3.	Westmoreland,			J. S. Mack,	Mount Pleasant,	B. and O. and Penna.
Standard Slope,	Westmoreland,			J. S. Mack,	Mount Pleasant,	B. and O. and Penna.
Sterling,	Fayette,			J. M. Shields,	Broad Ford,	Baltimore and Ohio
Summit,	Fayette,			James Lynch,	Broad Ford,	B. and O. and P. and L. E.
Tip Top,	Fayette,			James Lynch,	Scottdale,	Baltimore and Ohio
United,	Westmoreland,			Robert Ramsay,	United,	Pennsylvania
Valley,	Fayette,			James Lynch,	Scottdale,	B. and O. and Penna.
White,	Fayette,			James Lynch,	Broad Ford,	Baltimore and Ohio
Washington Coal and Coke Co.						
Washington No. 1,	Fayette,	O. S. Blair,	Star Junction,	R. M. Pollock,	Star Junction,	Baltimore and Ohio
Washington No. 2,						Baltimore and Ohio
Washington No. 3,						P. and L. E.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
W. J. Rainey						
Acme,	Westmoreland,	T. J. Mitchell,	Uniontown,	J. C. Beatty,	Mount Pleasant,	Pennsylvania
Fayette,*	Fayette,			J. B. Henderson,	Vanderbilt,	Baltimore and Ohio
Grace,	Fayette,			F. R. Bradford,	Connellsville,	Pennsylvania
Union,	Westmoreland,			William Duncan,	Alverton,	Pennsylvania
Westmoreland Coal Co.						
Magee,	Westmoreland,	E. G. Smith,	Irwin,	E. G. Smith,	Irwin,	Pennsylvania
Mount Pleasant Coke Co.						
Boyer Nos. 1 and 2,	Westmoreland,	W. A. Wilson,	Greensburg,	William McMurray,	Mount Pleasant,	Pennsylvania
Mount Pleasant Connellsville Coke Co.						
Mount Pleasant,	Westmoreland,	W. A. Wilson,	Greensburg.	Robert Hay,	Mount Pleasant,	Pennsylvania
Veteran Coke Co.						
Veteran,	Westmoreland,	W. A. Wilson,	Greensburg,	M. E. Strickler,	Mount Pleasant,	Pennsylvania
Clare Coke Co.						
Clare,	Westmoreland,	L. E. Walters,	Greensburg,	Aaron Koon,	Welty,	Pennsylvania
Cochran Brothers						
Spring Grove,	Fayette,		Dawson,			Baltimore and Ohio
B. F. Keister and Co.						
Franklin,	Fayette,			J. L. Robbins,	Summit Mines,	Pennsylvania
Sunshine Coal and Coke Co.						
Hester,	Westmoreland,	J. E. Rocks,	Masontown,	Henry L. Swift,	Greensburg,	Pennsylvania
Youghiogheny and Ohio Coal Co.						
Osborne Nos. 1 and 2,	Westmoreland,	A. W. Osborne,	Cleveland, O.,	C. P. McGregor,	West Newton,	Pennsylvania

*Idle.

Magee Coke Co. Magee,	Westmoreland,	J. W. Abraham,	Uniontown,	G. M. Treager,	Mammoth,	Pennsylvania
Brownfield-Connellsville Coke Co. Myers,	Westmoreland,	Isaac H. Brownfield,	Uniontown,	Thomas A. Lang,	Tarr,	Pennsylvania
Bessemer Coke Co. Humphreys,	Westmoreland,	R. L. Martin,	Pittsburg,	A. N. Young,	Greensburg,	Pennsylvania
Echard Coal and Coke Co. Murphy,	Fayette,	Joseph B. Echard,	Connellsville,			P. and L. E.
American Sheet and Tin Plate Co. Scottdale,	Fayette,	Robert Skemp,	Scottdale	H. J. Suttle,	Everson,	Baltimore and Ohio
Brush Run Coal and Coke Co. Brush Run,	Westmoreland,	James Hitchman,	Mount Pleasant,	Robert Russell,	Mount Pleasant,	Baltimore and Ohio
Peerless-Connellsville Coke Co. Carolyn,	Westmoreland,	G. W. Wilson,	Pittsburg,	R. L. Goff,	Scottdale,	Pennsylvania
Eaine and Wilkey Coke Co. Anica,	Fayette,	W. H. Wilkey,	Uniontown,	John Giles,	Whitsett,	P. and L. E.
Marion Coke Co. Marion,	Westmoreland,	H. A. Davis,	Brownsville,	D. R. Davis,	Mount Pleasant,	Pennsylvania
Perry Coke Co. Martin,	Fayette,	Harry G. Neff,	Star Junction,	James McGraw,	Star Junction,	P. and L. E.
Connellsville Mutual Coke Co. Love,	Westmoreland,	J. R. Burn,	Scottdale,	S. J. Lohr,	United,	Pennsylvania
Majestic Coke Co. Bethney,	Westmoreland,	Isaac H. Brownfield,	Uniontown,	Robert L. Hair,	Tarr,	Pennsylvania
Whyel Coke Co. Yukon,†	Westmoreland,	Harry Whyel,	Uniontown,			Pennsylvania
Keystone Coal and Coke Co. Hunker,*	Westmoreland,	A. D. Harmon,	Greensburg,			Pennsylvania

*Idle.
†Under construction.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsville Coke Co. Pennsville,*	Fayette,	J. D. Sherrick,	Pennsville,	J. D. Sherrick,	Pennsville,	Pennsylvania
Shannon Coal and Coke Co. Shannon,*	Fayette,	James Shannon,	Uniontown,	James Shannon,	Uniontown,	Baltimore and Ohio
J. R. Stauffer and Co. Dexter,*	Fayette,	J R. Stauffer,	Scottdale,			Baltimore and Ohio

*Idle.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
H. C. Frick Coke Co.																
Alverton Nos. 1, 2 and 3,	Westmoreland,	1,203	3,073	757	226,501	231,534	151,001	356	286	357	1	----	--------	--------	2,000	34
Brinkerton,	Westmoreland,	----------	3,330	2,097	210,890	216,317	140,593	240	286	187	----	----	--------	--------	3,600	30
Buckeye,	Westmoreland,	----------	4,672	770	112,613	118,055	99,809	216	287	180	2	----	--------	--------	50	28
Calumet,	Westmoreland,	311	9,442	3,397	190,713	203,863	127,142	260	289	254	3	3	--------	200	--------	29
Central,	Westmoreland,	----------	7,525	1,544	233,409	242,478	155,603	303	288	287	----	1	--------	--------	5,500	36
Chambers,	Westmoreland,	49,454	434	211	----------	50,099	--------	--------	147	64	----	----	--------	--------	3,500	15
Coalbrook,	Westmoreland,	----------	1,354	1,187	107,816	110,357	71,877	120	286	84	----	----	--------	--------	1,465	12
Enterprise,	Westmoreland,	3,380	----------	----------	----------	3,380	--------	--------	61	13	----	----	--------	--------	--------	3
Hecla No. 1,	Westmoreland,	----------	6,408	1,491	226,166	234,065	151,777	272	288	240	2	4	--------	100	500	35
Hecla No. 2,	Westmoreland,	----------	10,358	1,762	328,660	340,780	219,107	500	283	438	1	----	--------	400	3,075	51
Hecla No. 3,	Westmoreland,	----------	7,162	1,101	256,130	264,393	170,753	300	288	265	1	----	--------	100	1,137	42
Henry Clay,	Fayette,	----------	1,070	1,663	41,241	43,974	27,494	120	164	87	----	----	--------	--------	592	13
Mammoth Shaft,	Westmoreland,	----------	12,734	3,988	369,402	388,661	246,268	311	286	366	1	2	--------	--------	--------	68
Mammoth Slope,	Westmoreland,	----------	2,141	396	----------	----------	--------	199	174	169	----	1	--------	--------	1,500	
Marguerite,	Westmoreland,	687	9,986	1,905	324,680	337,258	216,453	400	290	378	----	3	--------	--------	19,925	58
Mullin,	Westmoreland,	----------	216	----------	19,734	19,950	13,156	40	148	53	----	----	--------	--------	150	4
Mutual,	Westmoreland,	24,333	1,773	845	104,114	131,065	69,409	195	254	218	----	1	--------	--------	4,300	23
Painter,	Fayette,	686	400	286	17,778	19,150	*28,408	205	141	99	----	----	--------	--------	--------	17
Rist,	Fayette,	2,739	2,503	2,028	81,553	88,823	54,369	200	247	113	----	----	--------	--------	1,123	20
South West "A," South West "B" and "King."	Westmoreland,	----------	11,601	4,536	421,523	437,660	281,015	625	291	612	1	3	2,225	--------	--------	67
South West No. 2,	Westmoreland,	----------	2,356	1,885	122,278	126,519	81,519	252	221	158	----	----	--------	--------	4,200	32

*Coal shipped from other mines 24,835 tons.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
South West No. 3,	Westmoreland,	.....	3,143	797	118,021	121,961	78,681	205	244	141	....	1	.....	.....	5,500	20
South West No. 4,	Westmoreland,	.....	758	159	45,690	46,607	30,460	151	159	110	....	1	.....	.....	3,000	12
Standard Shaft Nos. 2 and 3,	Westmoreland,	4,892	19,915	5,976	612,126	644,079	408,084	901	283	804	1	7	.....	1,095	5,375	90
Standard Slope,	Westmoreland,	.....	816	354	.....	.....	.....	.....	152	121	....	1	.....	.....	900	14
Sterling,	Fayette,	.....	.....	58	2,031	2,089	1,354	24	37	32	....	....	.....	.....	60	1
Summit,	Fayette,	.....	14	884	4,519	5,417	*23,980	121	144	77	....	1	.....	.....	100	11
Tip Top,	Fayette,	1,257	98	95	18,468	19,918	12,312	56	144	35	....	1	.....	.....	231	6
United,	Westmoreland,	.....	1,920	1,347	303,614	306,881	202,409	350	287	292	....	....	.....	.....	875	39
Valley,	Fayette,	3,797	1,384	1,695	139,846	146,722	97,272	251	284	142	....	....	.....	.....	2,082	16
White,	Fayette,	.....	410	3,349	74,313	78,072	49,542	200	230	90	....	....	.....	.....	1,000	20
Totals,		92,739	126,996	46,563	4,713,829	4,980,127	3,208,850	7,373	.....	6,466	13	30	2,225	1,895	71,740	846
Washington Coal and Coke Co.																
Washington No. 1,	Fayette,	184,842	10,058	4,282	407,747	606,929	271,831	500	302	662	3	....	.....	2,200	5,000	68
Washington No. 2,	Fayette,	170,491	4,916	4,895	425,768	606,070	283,846	500	301	570	....	2	.....	2,100	4,500	61
Washington No. 3,	Fayette,	97,771	6,681	3,322	.....	107,774	.....	.....	252	83	2	....	.....	600	2,000	10
Totals,		453,104	21,655	12,499	833,515	1,320,773	555,677	1,000	.....	1,315	5	2	.....	4,900	11,500	139
W. J. Rainey																
Acme,	Westmoreland,	.....	902	1,349	237,686	239,937	158,457	259	300	231	....	....	.....	.....	5,000	20
Grace	Fayette,	.....	3,080	1,132	125,172	129,384	83,448	250	300	135	....	....	.....	.....	.....	20

*Coal shipped from other mines 31,451 tons

Union,	Westmoreland,	.....	30	100	7,655	7,785	5,103	70	65	48	....	....	6,750	.....	.....	5
Totals,	.....	.....	4,012	2,581	370,513	377,106	247,008	579	.....	414	....	....	6,750	.....	5,000	45
Westmoreland Coal Co. Magee,	Westmoreland,	326,042	2,073	1,347	.....	329,462	.....	.....	313	378	1	7	.....	500	7,375	31
Mount Pleasant Coke Co. Boyer Nos. 1 and 2,	Westmoreland,	.....	1,510	1,080	116,002	118,592	77,335	120	284	114	....	....	.....	.....	.....	16
Mount Pleasant Connellsville Coke Co. Mount Pleasant,	Westmoreland,	.....	1,468	588	79,570	81,626	53,047	150	228	144	1	1	.....	2,000	200	10
Veteran Coke Co. Veteran,	Westmoreland,	.....	520	280	70,348	71,148	46,899	80	278	72	....	....	.....	.....	.....	9
Clare Coke Co. Clare,	Westmoreland,	.....	1,151	.....	63,000	64,151	45,140	100	210	82	....	....	.....	.....	.....	13
Cochran Brothers Spring Grove,	Fayette,	.....	200	301	47,986	48,487	30,310	61	308	58	....	....	3,750	200	500	7
B. F. Keister and Co. Franklin,	Fayette,	8,024	66	1,673	36,829	46,592	25,395	50	259	45	....	1	.....	.....	.....	6
Sunshine Coal and Coke Co. Hester,	Westmoreland,	.....	50	50	42,000	42,100	34,000	50	311	62	....	2	.....	.....	1,200	10
Youghiogheny and Ohio Coal Co. Osborne No. 1, Osborne No. 2,	Westmoreland,	39,301	1,473	134	.....	40,908	.....	.....	151	100	1	2	5,000	.....	4,000	8
Magee Coke Co. Magee,	Westmoreland,	.....	686	418	36,876	37,980	24,078	40	275	46	....	....	.....	.....	.....	5
Brownfield-Connellsville Coke Co. Myers,	Westmoreland,	.....	215	200	32,040	32,455	24,030	32	287	46	....	....	.....	.....	.....	4
Bessemer Coke Co. Humphreys,	Westmoreland,	.....	1,073	156	31,106	32,335	24,381	100	169	115	....	....	.....	.....	.....	16
Echard Coal and Coke Co. Murphy,	Fayette,	49	101	132	31,491	31,773	24,898	60	196	50	....	....	.....	.....	.....	4

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
American Sheet and Tin Plate Co.																
Scottdale,	Fayette,		31,335			31,335			288	26						8
Brush Run Coal and Coke Co.																
Brush Run,	Westmoreland,		340	8,570	17,500	26,410	13,125	30	175	38						6
Peerless-Connellsville Coke Co.																
Carolyn,	Westmoreland,	300	156	25	21,675	22,156	16,256	32	245	40						4
Kaine and Wilkey Coke Co.																
Anica,	Fayette,		175		15,000	15,175	10,000	32	160	38					3,000	3
Marion Coke Co.																
Marion,	Westmoreland,			12	13,725	13,737	9,200	25	183	22				100	400	2
Perry Coke Co.																
Martin,	Fayette,			40	12,208	12,248	14,430	30	147	29						4
Connellsville Mutual Coke Co.																
Love,	Westmoreland,		100	127	10,942	11,169	8,204	32	144	30				1,100	800	4
Majestic Coke Co.																
Bethney,	Westmoreland,		120	40	6,980	7,140	4,760	26	104	36						6
Grand totals,		919,559	195,475	76,816	6,603,135	7,794,985	4,497,024	10,002	9,766	21	45	17,725	10,695	105,715	1,206	

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
H. C. Frick Coke Co.,	Westmoreland, Fayette,	33	1,613	142	16,272	17,885	30	5		130	11,309	69	61,346	29,193	10	24
Washington Coal and Coke Co.,	Fayette,	3	900	24	3,125	4,025	3	3	7	21	4,365	10	5,100	2,550	4	6
W. J. Rainey,	Westmoreland, Fayette,			14	1,035	1,035				8	553	10	3,650	1,900	2	1
Westmoreland Coal Co.,	Westmoreland,			2	600	600				6	1,400	1	300	50	3	
Mount Pleasant Coke Co.,	Westmoreland,			1	150	150				4	75	2	180	90		
Mount Pleasant Connellsville Coke Co.	Westmoreland,			2	700	700				6	1,266	1	500	200	2	1
Veteran Coke Co.,	Westmoreland,	1	50	2	60	110				3	40	1	70	50		
Clare Coke Co.,	Westmoreland,			2	160	160				1	20					1
Cochran Brothers,	Fayette,			1	25	25	1			1	20					
B. F. Keister and Co.,	Fayette,			1	10	10										
Youghiogheny and Ohio Coal Co.	Westmoreland,			2	300	300				2	300	2	300	100	1	
Magee Coke Co.,	Westmoreland,			2	280	280				2		1				
Brownfield-Connellsville Coke Co.	Westmoreland,	2	140			140			2	1	15	1	155	70		
Bessemer Coke Co.,	Westmoreland,			3	260	260						2	600	300		
Echard Coal and Coke Co.,	Fayette,						1			1	14					
Brush Run Coal and Coke Co.,	Westmoreland,	1	60	1	100	160				2	160	1	250	200		
Peerless-Connellsville Coke Co.,	Westmoreland,			1	15	15										
Kaine and Wilkey Coke Co.,	Fayette,			1	60	60										
Marion Coke Co.,	Westmoreland,								1		35					
Majestic Coke Co.,	Westmoreland,	1	100			100				1	70					
Totals,		41	2,863	201	23,152	26,015	35	8	10	189	19,642	101	72,451	34,703	22	33

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside									
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
H. C. Frick Coke Co.,	Westmoreland, Fayette,	34	5	43	2,905	2	8	2	305	66	475	206	4,051	26	42	96	148	1,642	32	429	2,415	6,466
Washington Coal and Coke Co.,	Fayette,	4	2	11	507	30	5	33	101	2	94	57	846	1	11	17	18	346	4	72	469	1,315
W. J. Rainey.	Westmoreland, Fayette,	5	----	1	178	----	----	----	17	------	21	15	235	3	3	5	11	113	8	36	179	414
Westmoreland Coal Co.,	Westmoreland,	1	----	1	18	10	250	10	20	1	17	------	328	----	1	2	2	------	1	44	50	378
Mount Pleasant Coke Co.,	Westmoreland,	1	----	----	48	----	----	----	6	------	5	1	61	1	1	2	3	43	1	2	53	114
Mount Pleasant Connellsville Coke Co.	Westmoreland,	1	----	2	40	----	----	----	4	------	8	5	60	1	2	4	4	50	1	22	84	144
Veteran Coke Co.,	Westmoreland,	1	----	----	35	----	----	----	4	1	2	------	43	1	----	1	1	25	1	----	29	72
Clare Coke Co.,	Westmoreland,	1	----	----	40	----	----	----	4	1	2	------	48	1	----	2	3	24	----	4	34	82
Cochran Brothers,	Fayette,	1	----	----	20	----	----	----	4	------	4	2	31	1	1	1	1	16	1	6	27	58
B. F. Keister and Co.,	Fayette,	1	----	----	20	----	----	----	3	------	1	------	25	1	----	----	1	16	----	2	20	45
Sunshine Coal and Coke Co.,	Westmoreland,	1	----	----	24	----	----	----	4	1	3	------	33	1	1	1	1	13	----	12	29	62
Youghiogheny and Ohio Coal Co.	Westmoreland,	2	----	----	------	2	45	2	10	------	12	------	73	----	----	2	2	------	1	22	27	100
Magee Coke Co.,	Westmoreland,	1	----	1	20	----	----	----	2	------	4	------	28	1	1	----	3	13	----	----	18	46
Brownfield-Connellsville Coke Co.	Westmoreland,	1	----	----	18	----	----	----	2	------	2	------	23	1	----	1	2	9	----	10	23	46
Bessemer Coke Co.,	Westmoreland,	1	----	1	42	----	----	----	7	1	9	2	63	1	3	2	3	33	1	9	52	115
Echard Coal and Coke Co.,	Fayette,	1	----	----	23	----	----	----	2	------	1	------	27	1	1	1	1	14	1	4	23	50
American Sheet and Tin Plate Co.	Fayette,	1	----	----	16	----	----	----	4	1	2	------	24	----	----	----	----	------	----	2	2	26
Brush Run Coal and Coke Co.,	Westmoreland,	1	----	----	16	----	----	----	3	------	1	------	21	1	----	1	2	7	1	5	17	38
Peerless-Connellsville Coke Co.,	Westmoreland,	1	1	----	18	----	----	----	2	------	2	------	25	1	1	----	1	12	----	----	15	40

Kaine and Wilkey Coke Co.,	Fayette	1	----	----	19	----	----	----	2	------	------	------	22	1	1	1	----	12	1	----	16	38
Marion Coke Co.,	Westmoreland	1	----	----	8	----	----	----	1	------	------	------	10	1	----	1	----	6	----	4	12	22
Perry Coke Co.,	Westmoreland	1	----	----	12	----	----	----	3	------	2	1	19	1	1	1	----	7	----	----	10	29
Connellsville Mutual Coke Co.,	Westmoreland	1	----	----	13	----	----	----	2	------	1	------	17	1	----	1	1	9	----	1	13	30
Majestic Coke Co.,	Westmoreland	1	----	----	13	----	----	----	3	------	2	------	19	1	1	1	2	9	----	3	17	36
Totals,		63	8	60	4,053	44	308	47	515	74	671	289	6,132	48	71	143	210	2,419	54	689	3,634	9,766

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Fayette, Westmoreland,	14	13	14	10	11	16	23	24	24	25	26	25	225
Washington Coal and Coke Co.,	Fayette,	24	20	23	17	22	24	26	25	26	26	26	26	285
W. J. Rainey,	Westmoreland, Fayette,	17	15	17	14	16	17	17	17	18	22	26	26	222
Westmoreland Coal Co.,	Westmoreland,	24	24	30	22	25	28	27	26	28	25	27	27	313
Mount Pleasant Coke Co.,	Westmoreland,	24	6	21	25	26	26	26	26	26	26	26	26	284
Mount Pleasant Connellsville Coke Co.,	Westmoreland,	------	------	------	20	26	26	26	26	26	26	26	26	228
Veteran Coke Co.,	Westmoreland,	24	16	5	25	26	26	26	26	26	26	26	26	278
Clare Coke Co.,	Westmoreland,	15	16	14	17	10	16	18	19	20	22	22	21	210
Cochran Brothers,	Fayette,	26	24	26	26	25	26	26	25	26	26	26	26	308
B. F. Keister and Co.,	Fayette,	22	20	22	22	21	21	22	22	21	22	22	22	259
Sunshine Coal and Coke Co.,	Westmoreland,	26	24	27	26	26	26	26	26	26	26	26	26	311
Youghiogheny and Ohio Coal Co.,	Westmoreland,	------	------	------	------	------	------	25	26	25	26	24	25	151
Magee Coke Co.,	Westmoreland,	25	20	19	17	17	23	24	26	26	26	26	26	275
Brownfield-Connellsville Coke Co.,	Westmoreland,	25	21	21	18	21	26	26	25	26	26	26	26	287
Bessemer Coke Co.,	Westmoreland,	23	3	------	------	20	22	11	------	14	25	25	26	169
Echard Coal and Coke Co.,	Fayette,	26	22	------	------	------	------	26	21	26	23	26	26	196
American Sheet and Tin Plate Co.,	Fayette,	26	18	10	26	26	26	26	26	26	26	26	26	288
Brush Run Coal and Coke Co.,	Westmoreland,	26	12	------	------	------	------	7	26	26	26	26	26	175
Peerless-Connellsville Coke Co.,	Westmoreland,	23	20	20	14	14	7	22	22	25	26	26	26	245
Kaine and Wilkey Coke Co.,	Fayette,	------	------	------	------	------	10	25	25	25	25	25	25	160
Marion Coke Co.,	Westmoreland,	------	------	------	------	9	21	24	25	26	26	26	26	183
Perry Coke Co.,	Fayette,	26	------	------	------	------	------	------	17	26	26	26	26	147
Connellsville-Mutual Coke Co.,	Westmoreland,	20	9	------	------	------	------	------	17	25	23	24	26	144
Majestic Coke Co.,	Westmoreland,	------	------	------	------	------	------	------	------	26	26	26	26	104

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	5	Joseph Ravalic,	Slavonian,	Miner,	55	M.	1	2	Washington No. 3,	Fayette,	Fatally injured by fall of slate while making a cut-through in the pillar.
	11	William Santimere,	American,	Company man	27	M.	1	....	Washington No. 1,	Fayette,	Instantly killed by being struck by a runaway dilly trip on slope.
Feb.	18	George Ilyko, Jr.,	Slavonian,	Driver,	18	S.	....	....	Hecla No. 1,	Westmoreland,	Fatally injured by loaded car on entry while attempting to board the front car of his trip.
April	14	Thomas Garcar,	Slavonian,	Miner,	49	M.	1	....	Standard Shaft No. 2,	Westmoreland,	Instantly killed by fall of roof while knocking coal from a stump in pillar.
May	8	Joseph Katters,	Bohemian,	Driver,	38	M.	1	4	Mount Pleasant,	Westmoreland,	Fatally injured by stepping off cage before it had reached bottom of shaft.
June	17	John Hadabas,	Hungarian,	Company man	35	M.	1	3	Washington No. 1,	Fayette,	Killed instantly by being crushed between mine car and entry pillar.
July	3	John Bulmoder,	Slavonian,	Miner,	28	M.	1	....	Hecla No. 2,	Westmoreland,	Instantly killed by fall of slate while cutting a coal stump at face of pillar.
	14	John Semyan,	Slavonian,	Miner,	27	M.	1	....	Washington No. 3,	Fayette,	Fatally injured by fall of roof at face of pillar.
	20	Paul Kietz,	Polish,	Company man	50	M.	1	4	Calumet,	Westmoreland,	Instantly killed by fall of roof while cutting out a coal stump in pillar in an effort to make a fall.
	20	John Splein,	Polish,	Miner,	48	M.	1	3			
Aug.	25	David Trimmer,	American,	Dilly-rider,	24	M.	1	1	Hecla No. 3,	Westmoreland,	Instantly killed. He was squeezed between mine car, on which he was riding, and roof, on main entry.
Sept.	6	Joseph Nemitz,	Polish,	Miner,	28	M.	1	2	Mammoth Shaft,	Westmoreland,	Fatally injured. He attempted to jump a moving trip and fell under the cars, on entry.
	16	John Guiliani,	Italian,	Miner,	44	M.	1	4	Washington No. 1,	Fayette,	Instantly killed by fall of slate at face of pillar, while drawing posts to make a fall.

TABLE 4.—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Oct.	12	John Popolish,	Slavonian,	Loader,	52	M.	1	....	Osborne No. 2,	Westmoreland,	Fatally injured by fall of slate at face of entry.
	27	Mike Sholtis,	Slavonian,	Miner,	51	M.	1	1	Hecla No. 1,	Westmoreland,	Instantly killed by fall of roof at face of pillar.
	28	Louie Dubal,	Italian,	Dumper,	32	S.	....	....	Magee,	Westmoreland,	Fatally injured by car on tipple while stooping down to examine the dump. Outside.
Nov.	20	Steve Chervenock,	Hungarian,	Company man	29	M.	1	1	Calumet,	Westmoreland,	Instantly killed by fall of roof at face of pillar, while taking rails out of a rib before making a fall.
Dec.	6	George Yevick,	Slavonian,	Driver,	27	M.	1	4	Alverton No. 1,	Westmoreland,	Instantly killed by fall of roof while switching two empty cars on entry.
	8	Tony Paselo,	Italian,	Miner,	45	M.	1	2	South West "A,"	Westmoreland,	Fatally injured by fall of slate at face of pillar.
	11	August Groselin,	German,	Company man	35	M.	1	5	Buckeye,	Westmoreland,	Killed by fall of roof at face of pillar, while attempting to take it down.
	15	John Grunic,	Slavonian,	Company man	18	M.	1	5	Buckeye,	Westmoreland,	Fatally injured by a post that was dislodged by fall of slate on entry.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 9	Frank Givant,	Polish,	Company man,	48	M.	Standard No. 2,	Westmoreland	Internally injured by fall of slate while working on one of the main passageways of the mine.
18	D. B. Lankey,	American,	Miner,	32	S.	Hester,	Westmoreland,	Hip injured and rib broken by fall of roof at face of pillar.
Feb. 3	Alexander Loderick,	Hungarian,	Miner,	30	S.	Washington No. 2,	Fayette,	Hands injured by an explosion of a shot that missed fire.
12	Steve Lahetta,	Slavonian,	Miner,	36	M.	Mammoth Shaft,	Westmoreland,	Leg broken by fall of slate at face of pillar.
March 2	James Dezart,	Bohemian,	Driver,	29	M.	South West "A,"	Westmoreland,	Toes injured by mine car on entry.
9	Andy Benyo,	Hungarian,	Miner,	36	M.	Calumet,	Westmoreland,	Leg broken by fall of slate while knocking coal from pillar.
19	John Saxton,	English,	Company man,	62	M.	Mutual,	Westmoreland.	Back bruised and rib fractured by displaced post.
April 24	Steve Forkashopky,	Slavonian,	Miner,	27	M.	Hecla No. 1,	Westmoreland,	Shoulder dislocated by piece of falling roof in room.
24	George Cestok,	Slavonian,	Miner,	29	M.			Head injured by fall of roof in working place.
May 3	Frank Egger,	German,	Company man,	38	M.	Washington No. 2,	Fayette,	Arm broken by fall of slate on entry.
7	Lorance Ferero,	Italian,	Loader,	34	S.	Magee,	Westmoreland,	Face cut and rib broken by explosion of carbonite.
22	Frank Sidehammer,	Bohemian,	Driver,	27	M.	Standard No. 2,	Westmoreland,	Leg broken by mine cars on entry.
27	D. C. Cramer,	American,	Company man,	34	M.	Calumet,	Westmoreland,	Eye injured and body bruised by the bursting of a high pressure air line.
27	Frank Griffin,	American,	Company man,	38	M.			Ankle broken and body bruised by the bursting of a high pressure air line.
June 1	William Davis,	Welsh,	Company man,	29	M.	Marguerite,	Westmoreland,	Leg broken by fall of roof on entry.
8	Foante Shebol,	Bohemian,	Driver,	31	M.	Standard No. 2,	Westmoreland,	Head injured by being kicked by a mule.
12	Carl Seeonty,	Italian	Miner,	26	M.	South West "A,"	Westmoreland,	Leg broken by fall of draw slate in pillar working.
21	Albert Brisko,	American,	Driver,	35	M.	Magee,	Westmoreland,	Foot crushed by runaway mine car on main entry.

TABLE 5.—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
June	28	George Boyts	Austrian,	Loader,	35	M.	Magee,	Westmoreland,	Ankle broken by fall of slate at face of room.
July	1	Martin Borish,	Hungarian,	Driver,	29	M.	Marguerite,	Westmoreland,	Ear cut and head bruised by being squeezed between car and entry pillar.
	26	Mike Solarsic,	Polish,	Miner,	46	M.	Mammoth Shaft,	Westmoreland,	Leg broken by fall of slate at face of room, while examining his working place.
	27	Burl Teters,	American,	Driver,	27	S.	Central,	Westmoreland,	Arm broken by falling off loaded car on entry.
	28	George Botsko,	Slavonian,	Company man,	21	M.	Mammoth Slope,	Westmoreland,	Leg broken by being caught in coil of rope.
Aug.	3	John Hails,	American,	Driver,	19	S.	Mount Pleasant,	Westmoreland,	Arm and breast bruised. Squeezed between mine car on entry and entry pillar.
	10	John Whitfield,	English,	Mine foreman,	53	M.	South West No. 3,	Westmoreland,	Head and hip cut. Caught by flying post while instructing a miner to make a fall at face of pillar.
	10	Rudolph Mislenovics,	Slavonian,	Company man,	29	M.	Hecla No. 1,	Westmoreland,	Hip crushed between two freight cars in yard. Outside.
	12	John Liptack,	Slavonian,	Miner,	29	M.	Magee,	Westmoreland,	Toes crushed by fall of slate at face of room.
	17	Alex Keresky,	Polish,	Company man,	20	S.	South West "A,"	Westmoreland,	Leg broken by centre sheave while walking to his work on the haulage way at shaft bottom.
	17	Joseph Reeder,	German,	Miner,	42	S.	Tip Top,	Fayette,	Shoulder injured by fall of roof coal at face of pillar.
	19	Mike Mateo,	Austrian,	Loader,	33	S.	Osborne No. 1,	Westmoreland,	Arm fractured by fall of slate at face of entry that he was preparing to take down.
	19	William Niehenke,	American,	Miner,	34	M.	Summit,	Fayette,	Collar bone broken by post knocked out by fall of slate at face of pillar.
Sept.	3	Frank Barnard,	Scotch,	Machine runner,	44	M.	Magee,	Westmoreland,	Leg fractured between mining machine and rib at face of room.

Sept.	3	Joseph Hahula,	Slavonian,	Miner,	21	M.	Hecla No. 1,	Westmoreland,	Leg injured. While pulling a piece of loose rock, at face of pillar, it struck the pick and caused it to penetrate his leg.
	13	Walter Warnsley,	English,	Loader,	26	M.	Magee,	Westmoreland,	Leg injured by machine bit while standing in the way of the machine runner at face of entry.
	13	Joe Felca,	Polish,	Miner,	32	M.	Standard No. 2,	Westmoreland,	Hand squeezed while coupling cars for driver on entry.
	20	W. T. Walls,	American,	Company man,	32	M.	South West No. 4,	Westmoreland,	Head injured by fall of slate on entry while cleaning up a fall.
	27	Frank Kantorik,	Bohemian,	Miner,	20	S.	Standard No. 2,	Westmoreland,	Arm injured by mine car on entry.
	30	Frank Ryas,	Polish,	Miner,	30	M.	Standard No. 2,	Westmoreland,	Head cut by fall of slate at face of room.
Oct.	16	Franf Stefl,	Bohemian,	Company man,	28	M.	Standard Slope,	Westmoreland,	Head cut. While riding on rear of loaded car on entry the drag struck an iron sheave and rebounding struck him on head.
	19	John Tote,	Slavonian,	Loader,	25	S.	Osborne No. 1,	Westmoreland,	Hand crushed between mine car and entry face.
Nov.	2	Joe Cardale,	Italian,	Miner,	39	M.	Standard No. 2,	Westmoreland,	Head cut by mine car on entry.
	11	Steve Pushcar,	Slavonian,	Company man,	30	M.	Marguerite,	Westmoreland,	Hip dislocated. Squeezed between mine car at face of entry and entry pillar.
	16	Andy Tabin,	Slavonian,	Loader,	33	M.	Magee,	Westmoreland,	Leg broken by fall of slate at face of entry.
Dec.	11	Carl Ottenberg,	American,	Driver,	27	S.	Franklin,	Fayette,	Chest and back injured by trip of mine cars on entry.
	18	John Chlulka,	Austrian,	Miner,	31	M.	Hester,	Westmoreland,	Ankle sprained by fall of coal at face of pillar.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

All the mines of this company are in very good condition as to ventilation, drainage and general safety, with the exception of White and Marguerite, in which the ventilation was not satisfactory in parts. Steps are being taken, however, by the officials to overcome this condition.

The roadways are kept neat and clean and precaution taken to keep the dust moistened by the use of water car where necessary.

WASHINGTON COAL AND COKE COMPANY

Washington Nos. 1, 2 and 3.—In No. 1 the ventilation was weak in two of the entries. Otherwise these mines were in excellent condition as to ventilation, drainage and safety.

The roadways are kept in a damp condition by the use of water cars and water pipes with hose connections.

W. J. RAINEY

Acme, Grace and Union.—The ventilation in these mines on my last visit was good, but the drainage in parts of the Acme was in poor condition.

WESTMORELAND COAL COMPANY

Magee.—A new mine, modern in construction and in very good condition as to ventilation, drainage and general condition.

MOUNT PLEASANT COKE COMPANY

Boyer Nos. 1 and 2.—In good condition. No. 1 mine is nearly exhausted.

MOUNT PLEASANT CONNELLSVILLE COKE COMPANY

Mount Pleasant.—In excellent condition.

VETERAN COKE COMPANY

Veteran.—Ventilation good except in two entries, due to the breaking down of a door. Drainage good.

CLARE COKE COMPANY

Clare.—In excellent condition.

COCHRAN BROTHERS

Spring Grove.—Fairly well ventilated, but in some parts the air current was not strong enough at the face of the workings.

B. F. KEISTER AND COMPANY

Franklin.—In good condition.

SUNSHINE COAL AND COKE COMPANY

Hester.—In good condition.

YOUGHIOGHENY AND OHIO COAL COMPANY

Osborne Nos. 1 and 2.—Ventilation was good except in No. 2 mine, where the air was not conducted to the face of some of the workings. Drainage good.

MAGEE COKE COMPANY

Magee.—Ventilation was excellent, but the roadways in some places were wet and muddy.

BROWNFIELD-CONNELLSVILLE COKE COMPANY

Myers.—Ventilation was not satisfactory. Drainage was good.

BESSEMER COKE COMPANY

Humphreys.—In good condition.

ECHARD COAL AND COKE COMPANY

Murphy.—In good condition.

AMERICAN SHEET AND TIN PLATE COMPANY

Scottdale.—Ventilation was good, but the drainage was defective in some parts of the mine.

BRUSH RUN COAL AND COKE COMPANY

Brush Run.—Ventilation and drainage excellent.

PEERLESS-CONNELLSVILLE COKE COMPANY

Carolyn.—In fair condition. Ventilation in some parts of the mine needs to be improved.

KAINE AND WILKEY COKE COMPANY

Anica.—In good condition, except that the miners were burning a poor grade of illuminating oil.

MARION COKE COMPANY

Marion.—Ventilating currents at the face of the workings were weak. Drainage was good.

PERRY COKE COMPANY

Martin.—Ventilation and drainage were in good condition. A new drift has been opened during the year.

CONNELLSVILLE MUTUAL COKE COMPANY

Love.—In good condition.

MAJESTIC COKE COMPANY

Bethney.—Ventilation is produced by natural means, and, consequently, the air current was weak around the face of the workings.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Buckeye.—One permanent overcast was constructed for the purpose of preventing persons from traveling on haulage.

Chambers.—One permanent overcast was built.

Hecla No. 1.—One stone and brick overcast and ten brick stoppings were constructed; concrete floor in pump room; 550 cubic yards of masonry and steel "I" beams were constructed at bottom of shaft. The ventilation was increased about 40,000 cubic feet per minute by taking out an old stairway and installing hoisting apparatus at the air shaft; a brick mine office was built inside the mine.

Hecla No. 2.—Fifty-one permanent stoppings and three permanent overcasts were built; 200 feet of wooden air bridge was replaced by masonry and the hoisting shaft was retimbered and lined. A rescue station, 20 x 30 feet, equipped with four Draeger rescuing apparatuses complete, was constructed for the training of men in the proper use of helmets.

Hecla No. 3.—Six brick stoppings and a brick and stone overcast were constructed.

Mammoth Shaft.—Four permanent overcasts and eight permanent stoppings were built; an additional air course from shaft bottom to No. 3 right heading. A 12-6 x 17-6 foot air shaft, 297 feet deep, with stairway, has been sunk at the back of the workings for ventilation and a means of egress. Haulage extended on No. 6 left entry 2,400 feet. One 150 horse-power boiler and two 80 horse-power boilers were installed; 5,200 feet of 8-inch and 10-inch water line was laid.

Mammoth Slope.—One overcast, two stoppings and a manway to No. 19 flat right entry were constructed; two 80 horse-power boilers and two 12 x 14 x 16 inch air compressors were installed; a 15-feet extension was built to brick boiler house.

Marguerite.—An increase power for pumping water was installed on surface to operate pumps with steam instead of air, which consists of four boilers and one 16-inch bore hole, 258 feet deep, used for live and exhaust steam; thirty permanent stoppings and one overcast were built.

Mutual.—One underground tail rope haulage, 11,400 feet long, with one 18 x 30 inch direct Vulcan engine was installed; new engine erected.

Painter.—One overcast and ten brick stoppings to enclose fire section were constructed.

Southwest "A."—Three overcasts and twenty brick stoppings were constructed; a brick mine office was built inside of mine.

Southwest King.—A 12-foot Johnston fan was installed.

Southwest No. 3.—A new Robinson fan, 3 feet 3 inches by 12 feet, and two 2-flue 45 horse-power boilers were installed.

Standard Shaft Nos. 2 and 3.—One permanent overhead bridge, four brick overcasts and 127 brick stoppings were built; haulage extended 6,800 feet.

United.—Seven permanent stoppings; one 150 horse-power tubular boiler installed, and a 24 x 48 feet addition to blacksmith and carpenter shop constructed.

WESTMORELAND COAL COMPANY

Magee.—Eleven brick overcasts and sixty concrete stoppings were built.

W. J. RAINEY

Acme.—Ten permanent stoppings were constructed.

SUNSHINE COAL AND COKE COMPANY

Hester.—An air shaft, 7 x 8 x 16 feet, was sunk and area of furnace increased to improve ventilation.

ECHARD COAL AND COKE COMPANY

Murphy.—A five million gallon reservoir with pumps and necessary buildings were constructed.

PEERLESS-CONNELLSVILLE COKE COMPANY

Carolyn.—A tipple was erected and one Boyts and Porter deep well pump installed.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

August 23, information was made against John Nicholas and Walter Betuary for burning impure illuminating oil in the Grace mine of W. J. Rainey. Defendants entered a plea of guilty and were ordered to pay costs of prosecution.

October 28, information was made against Marius Durieus, charged with taking matches and smoker's articles into the Mammoth Slope mine of the H. C. Frick Coke Company. Defendant entered a plea of guilty and was ordered to pay a fine of five dollars and costs.

November 29, information was made against Tony Cost, charged with carrying matches into the Standard Shaft mine of the H. C. Frick Coke Company. He was tried before a jury, who returned a verdict of guilty. The Court sentenced him to pay a fine of five dollars and costs.

December 7, information was made against Spanislaw Smider, charged with taking matches into the Standard Shaft mine of the H. C. Frick Coke Company. Defendant entered a plea of guilty and was sentenced to pay a fine of one dollar and be confined in jail for a period of two months and ten days.

December 10, information was made against Mike Shoals, Mike Galona and Ignace Deus, for taking matches into the Standard No. 2 mine of the H. C. Frick Coke Company. Shoals and Galona entered a plea of guilty. Shoals was ordered to pay a fine of one dollar and costs, and Galona to pay a fine of five dollars and costs. Deus is a fugitive from justice.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the City Hall, Scottdale, April 6, 7, 8 and 9.

The Board of Examiners was composed of Alexander McCanch, Inspector, William Duncan, Superintendent, and P. P. Glenn, Mine Foreman. There were twenty-nine applicants examined, sixteen for certificates as Mine Foremen and thirteen for certificates as Fire Bosses. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

Robert W. Maher and Paul Klaas.

TWELFTH DISTRICT

INDIANA, JEFFERSON, ARMSTRONG AND CLEARFIELD COUNTIES

Punxsutawney, Pa., March 15, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I transmit herewith the annual report of the Twelfth Bituminous District for the year ending December 31, 1909.

Respectfully submitted,

ROGER HAMPSON,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	76
Number of mines in operation,	76
Number of tons of coal shipped to market,	6,445,987
Number of tons used at mines for steam and heat,	287,902
Number of tons sold to local trade and used by employes,	33,565
Number of tons used in the manufacture of coke,	1,001,009
Number of tons of coal produced,	7,768,463
Number of tons of coke produced,	588,078
Number of coke ovens,	2,357
Number of coke ovens in operation,	2,357
Number of tons of coal produced by pick mining,	1,742,079
Number of tons produced by compressed air machines,	6,011,384
Number of tons produced by electrical machines,	15,000
Number of persons employed inside of mines,	8,615
Number of persons employed outside, including coke workers,	1,943
Number of persons employed at manufacture of coke,	578
Number of fatal accidents inside of mines,	22
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	78
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	353,112
Number of persons employed per fatal accident inside,	392
Number of persons employed per fatal accident outside,	1,943
Number of persons employed per non-fatal accident inside,	110
Number of persons employed per non-fatal accident outside,	971
Number of wives made widows,	9
Number of children made orphans,	36
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	9
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	135
Number of electric motors used outside,	———
Number of fans in use,	56
Number of furnaces in use,	21
Number of gaseous mines in operation,	11
Number of non-gaseous mines in operation,	65
Number of new mines opened,	———
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Rochester and Pittsburg Coal and Iron Company,	2,282,601
Cowanshannock Coal and Coke Company,	818,599
Buffalo and Susquehanna Coal and Coke Company,	802,903
Jefferson and Clearfield Coal and Iron Company,	794,951
Clearfield Bituminous Coal Corporation,	489,056
Pennsylvania Coal and Coke Company,	340,963
Cascade Coal and Coke Company,	283,196
Ellsworth-Dunham Coal Company,	190,898
Berwind-White Coal Mining Company,	173,574
Seneca Coal Mining Company,	172,233
Urey Ridge Coal Company,	170,293
Wharton Coal and Coke Company,	138,245
John McLeavy and Company,	132,677
Punxsutawney Coal Mining Company,	124,678
Anita Coal Mining Company,	120,848
Summit Coal Company,	103,000
Glenwood Coal Company,	92,865
Indiana Coal Company,	80,600
Valier Coal Company,	66,512
Tearing Run Coal Company,	58,691
Bowersville Coal Company,	55,296
Bear Run Coal Company,	54,421
Madeira-Hill Coal Mining Company,	54,277
Graceton Coke Company,	53,931
S. A. Rinn and Company,	47,257
Cortez Coal Company,	32,225
Hillsdale Coal and Coke Company,	24,506
Chestnut Ridge Coal Company,	5,077
Clark Brothers Coal Mining Company,	4,070
Total,	7,768,463

Production by Counties

Indiana,	3,588,861
Jefferson,	3,203,726
Armstrong,	921,599
Clearfield,	54,277
Total,	7,768,463

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Rochester and Pittsburg Coal and Iron Co.,	4	--------	4	26	--------	26	570,650	87,792	2,256	786	3,042	564	--------	86	--------
Cowanshannock Coal and Coke Co.,	4	--------	4	8	--------	8	204,649	102,325	802	148	950	200	--------	100	--------
Buffalo and Susquehanna Coal and Coke Co.,	1	--------	1	15	--------	15	802,903	53,526	798	159	957	798	--------	53	--------
Jefferson and Clearfield Coal and Iron Co.,	3	--------	3	6	--------	6	264,983	132,491	753	260	1,013	251	--------	125	--------
Clearfield Bituminous Coal Corporation,	--------	1	1	1	1	2	--------	489,056	697	57	754	697	57	697	57
Pennsylvania Coal and Coke Co.,	1	--------	1	1	--------	1	340,963	340,963	684	50	734	684	--------	684	--------
Cascade Coal and Coke Co.,	--------	--------	--------	9	--------	9	--------	31,466	225	82	307	--------	--------	25	--------
Ellsworth-Dunham Coal Co.,	--------	--------	--------	3	--------	3	--------	63,632	227	19	246	--------	--------	75	--------
Berwind-White Coal Mining Co.,	1	--------	1	1	--------	1	173,574	173,574	184	32	216	184	--------	184	--------
Wharton Coal and Coke Co.,	2	--------	2	1	--------	1	69,122	138,245	92	61	153	46	--------	92	--------
John McLeavy and Co.,	--------	--------	--------	2	--------	2	--------	66,338	101	13	114	--------	--------	50	--------
Punxsutawney Coal Mining Co.,	--------	--------	--------	1	--------	1	--------	124,678	230	18	248	--------	--------	230	--------
Anita Coal Mining Co.,	--------	--------	--------	3	--------	3	--------	40,282	108	16	124	--------	--------	36	--------
Glenwood Coal Co.,	1	--------	1	--------	--------	--------	92,865	--------	125	8	133	125	--------	--------	--------
Indiana Coal Co.,	1	--------	1	--------	--------	--------	80,600	--------	181	15	196	181	--------	--------	--------
Bowersville Coal Co.,	1	--------	1	1	--------	1	55,296	55,296	90	10	100	90	--------	90	--------
Graceton Coke Co.,	2	--------	2	--------	1	1	26,865	53,931	67	91	158	33	--------	--------	91
Cortez Coal Co.,	1	--------	1	--------	--------	--------	32,225	--------	41	4	45	41	--------	--------	--------
Miscellaneous Companies,	--------	--------	--------	--------	--------	--------	--------	--------	954	114	1,068	--------	--------	--------	--------
Totals and averages for district,	22	1	23	78	2	80	353,112	99,596	8,615	1,943	10,558	392	1,943	110	971

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	1	----	----	1	1	3	----	----	----	1	7	31.81
Falls of roof,	----	----	----	1	----	----	----	1	2	----	2	2	8	36.36
Mine cars,	----	1	----	1	----	----	----	----	----	----	1	----	3	13.64
Explosions of gas and dust,	----	----	----	----	----	----	----	----	1	----	----	----	1	4.55
Explosions of powder and dynamite,	----	----	----	1	----	----	----	----	----	----	----	----	1	4.55
Electricity,	----	----	----	----	----	----	----	----	1	----	----	----	1	4.55
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	1	----	1	4.54
Totals,	----	1	1	3	----	1	1	4	4	----	4	3	22	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	----	1	----	1	100.00
Totals,	----	----	----	----	----	----	----	----	----	----	1	----	1	100.00
Grand totals inside and outside,	----	1	1	3	----	1	1	4	4	----	5	3	23	------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	4	5	----	2	1	----	5	----	2	2	5	1	27	34.62
Falls of slate,	1	----	----	----	----	2	----	1	----	----	----	----	4	5.13
Falls of roof,	----	----	----	----	----	1	1	1	----	2	----	----	5	6.41
Mine cars,	3	2	3	2	2	1	3	2	3	2	4	3	30	38.46
Explosions of gas and dust,	1	----	----	----	----	----	----	----	1	----	----	----	2	2.56
Explosions of powder and dynamite,	----	1	----	----	----	----	2	----	----	----	----	----	3	3.85
Blasts, premature and otherwise,	----	----	----	----	1	----	----	----	----	----	1	1	3	3.85
Mules,	----	----	----	----	----	----	----	----	1	----	----	----	1	1.28
Electricity,	----	----	----	1	----	----	----	----	----	----	----	1	2	2.56
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	1	----	1	1.28
Totals,	9	8	3	5	4	4	11	4	7	6	11	6	78	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	1	----	----	1	50.00
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	1	----	1	50.00
Totals,	----	----	----	----	----	----	----	----	----	1	1	----	2	100.00
Grand totals inside and outside,	9	8	3	5	4	4	11	4	7	7	12	6	80	------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	1	2	----	1	1	4	2	----	1	3	15
Machine runners,	----	----	----	----	----	----	----	----	1	----	1	----	2
Machine scrapers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Drivers and runners,	----	1	----	----	----	----	----	----	----	----	1	----	2
Doorboys and helpers,	----	----	----	1	----	----	----	----	----	----	----	----	1
Company men,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	----	1	1	3	----	1	1	4	4	----	4	3	22
Outside													
Machine scrapers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	----	----	----	----	----	----	----	----	----	----	1	----	1
Grand totals inside and outside,	----	1	1	3	----	1	1	4	4	----	5	3	23

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	4	2	4	2	1	5	4	2	3	8	5	42
Machine runners,	----	----	----	----	----	----	1	----	----	----	----	----	1
Machine loaders,	4	2	1	----	----	2	4	----	2	2	----	----	17
Machine scrapers,	1	1	----	----	1	----	----	----	2	----	----	----	5
Drivers and runners,	1	1	----	----	----	----	1	----	----	1	----	----	4
All other employes,	1	----	----	1	1	1	----	----	1	----	3	1	9
Totals,	9	8	3	5	4	4	11	4	7	6	11	6	78
Outside													
All other employes,	----	----	----	----	----	----	----	----	----	1	1	----	2
Totals,	----	----	----	----	----	----	----	----	----	1	1	----	2
Grand totals inside and outside,	9	8	3	5	4	4	11	4	7	7	12	6	80

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,				1				1	1		2	1	6
Scotch,				1									1
Polish,									1		1	1	3
Italian,		1		1		1	1	1	1		1		7
Slavonian,								1	1		1		3
Lithuanian,			1										1
Austrian,												1	1
Croatian,								1					1
Totals,		1	1	3		1	1	4	4		5	3	23

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	3	1	2	1	2	1		3	3	3	1	21
English,											1		1
Welsh,	1												1
Scotch,	1			1		1							3
Irish,							1				1		2
Polish,	2											2	4
Hungarian,			1										1
Italian,	1	4	1	1	1		7	2		3	5	2	27
Slavonian,	2			1		1	2	2	3	1		1	13
Lithuanian,					2								2
Austrian,											1		1
Swedish,	1								1		1		3
Croatian,		1											1
Totals,	9	8	3	5	4	4	11	4	7	7	12	6	80

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Rochester and Pittsburg Coal and Iron Co.																
Adrian,	Slope,	Gaseous,	Fan,	16	8	8	150	3	Capell,		----	4	108,000	66,000	110,000	444
Florence No. 1,	Slope,	Non-gas.	Fan,	16	8	8	125	3.2	Capell,		----	7	120,000	100,000	125,000	607
Florence No. 2,	Drift,	Non-gas.	Fan,	7.5	1.2	2.4	250	.6	Stine,		----	2	35,000	20,000	40,000	
Eleanora No. 2,	Slope,	Gaseous,	Fan,	20	6	6	50	2	Guibal,		----	7	125,000	80,000	130,000	113
				25	8	8	70	3.5	Guibal,							
Eleanora No. 3,	Drift,	Non-gas.	Fan,	20	6	6	40	2.5	Guibal,		----	1	45,000	30,000	47,000	44
Eleanora Shaft,	Shaft,	Gaseous,	Fan,	16	8	8	160	3	Capell,		----	7	108,000	140,000	185,000	152
Walston No. 3,	Slope,	Non-gas.	Fan,	25	6	6	70	2	Guibal,	Steam,	----	2	50,000	30,000	54,000	103
Walston No. 6,	Drift,	Non-gas.	Fan,	20	5	6	45	2	Guibal,		----	2	35,000	20,000	38,000	
Walston No. 8,	Drift,	Non-gas.	Fan,	7	1.2	2.4	150	.6	Stein,							332
				7	1.2	2.4	150	.6	Stein,		----	2	34,000	20,000	36,000	
Lucerne No. 1,	Shaft,	Gaseous,	Fan,	12	4	3.6	84	.6	Brazil,		----	2	40,000	30,000	42,000	
Lucerne No. 2,	Drift,	Non-gas.	Fan,	8	2.3	3.3	160	.2	Clark,							261
Lucerne No. 3,	Drift,	Non-gas.	Fan,	8	2.3	3.3	160	.2	Clark,		----	4	50,000	35,000	54,000	
Cowanshannock Coal and Coke Co.																
Yatesboro No. 2,	Drift,	Non-gas.	Fan,	13	6.5	6.5	180	2	Capell,	Electricity,	----	8	250,000	200,000	255,000	802
Yatesboro No. 3,	Drift,		Fan,	12	7	6	180	2	Capell,	Electricity,						
Yatesboro No. 4,	Drift,		Fan,	14	6	7	125	1.5	Robinson,	Steam,	----	4	85,000	60,000	88,000	

Buffalo and Susquehanna Coal and Coke Co.																	
Sagamore No. 11,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	2	80,000	50,000	84,000	
Sagamore No. 12,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	3	80,000	48,000	83,000	
Sagamore No. 13,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	2	81,000	48,000	84,000	
Sagamore No. 14,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	2	80,000	45,000	82,000	
Sagamore No. 15,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0	Capell,	Electricity,	---	2	80,000	46,000	82,000	554
Sagamore No. 16,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	2	80,000	48,000	82,000	
Sagamore No. 17,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	2	80,000	50,000	82,000	
Sagamore No. 18,	Drift,	Non-gas.	Fan,	8	3.5	3.5	100	1.0			---	2	80,000	50,000	82,000	
B. and S. Shaft No. 3,	Shaft,	Gaseous,	Fan,	16	5	5	100	2.0		Steam,	---	6	110,000	80,000	115,000	244
Jefferson and Clearfield Coal and Iron Co..																	
Ernest No. 1,	Drift,	Non-gas.	Fan,	16	8	8	80	1.5	Capell,		---	3	120,000	85,000	122,000	168
Ernest No. 2,	Drift,	Gaseous,	Fan,	16	8	8	90	1.8	Capell,		---	---	146,000	114,000	148,000	206
Ernest No. 3,	Drift,	Gaseous,	Fan,	6	1.4	2.5	200	.5	Clark,	Steam,	---	---	80,000	80,000	81,000	182
Ernest No. 4,	Shaft,	Gaseous,	Fan,	12.5	7	4.5	100	1.8	Robinson		---	---	70,000	60,000	72,000	150
Ernest No. 5,	Drift,	Non-gas.	Fan,	6	1.4	2.5	200	.5	Clark,		---	---	20,000	20,000	21,000	47
Clearfield Bituminous Coal Corporation																	
Canoe Ridge No. 2,	Drift,	Non-gas.	Fan,	10	2.6	4.6	180	.6	Stine,	Steam,	---	3	50,000	30,000	52,000	
Canoe Ridge No. 3,	Drift,	Non-gas.	Fan,	16	5	5	80	2.5	Robinson,	Steam,	---	3	46,000	28,000	48,000	697
Canoe Ridge No. 4,	Drift,	Non-gas.	Fan,	7	2	2.1	220	1.4	Stine,	Electricity,	---	---	45,000	20,000	46,000	
Pennsylvania Coal and Coke Co.																	
Arcadia No. 40,	Drift,		Furnace,								36	2	28,000	18,000	30,000	
Arcadia No. 41,	Drift,		Fan,	12	3.10	3.10	125	------	Brazil,	Steam,	---	2	25,000	15,000	27,000	
Arcadia No. 42,	Drift,	Non-gas.	Furnace,							---	36	1	20,000	10,000	21,000	684
Arcadia No. 43,	Drift,		Furnace,								36	1	20,000	10,000	21,000	
Arcadia No. 44,	Drift,		Furnace,								36	1	21,000	9,000	22,000	
Cascade Coal and Coke Co.																	
Sykesville Shaft,	Shaft,	Non-gas.	Fan,	16	8	8	80	1.5	Capell,	Steam,	---	3	70,000	30,000	72,000	225
Ellsworth-Dunham Coal Co.																	
Victor No. 11,	Drift,	Non-gas.	Fan,	10	2.6	4.6	200	------	Stine,	Steam,	---	2	40,000	20,000	42,000	227
Victor No. 14,	Slope,	Non-gas.	Fan,	20	8	8	60	------	Pollock,	Steam,	---	---	20,000	14,000	21,000	
Berwind-White Coal Mining Co.																	
West Eureka No. 6,	Slope,	Gaseous,	Fan,	16	5	5	110	------	Capell,	Steam,	---	4	97,000	40,000	100,000	184
West Eureka No. 7,	Slope,	Gaseous,	Fan,	16	5	5	120	------	Capell,	Steam,	---	6	100,000	50,000	102,000	

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Seneca Coal Mining Co.																
Seneca,	Drift,	Non-gas.	Fan,	13	3.5	3.5	80	.6	Stine,	Steam,			40,000	18,000	42,000	177
Urey Ridge Coal Co.																
Urey No. 1,	Drift,	Non-gas.	Furnace,								42	2	20,000	10,000	21,000	209
Urey No. 3,	Drift,		Furnace,								42	2	22,000	12,000	24,000	
Urey No. 6,	Drift,		Furnace,								36	1	20,000	12,000	22,000	
Wharton Coal and Coke Co.																
Wharton,	Slope,	Gaseous,	Fan,	16	5	5	85	1.5	Capell,	Steam,		2	60,000	30,000	62,000	92
John McLeavy and Co.																
Sholler,	Slope,	Non-gas.	Fan,	16	5	5	85	2	Capell,	Steam,		2	80,000	30,000	82,000	101
Punxsutawney Coal Mining Co.																
Francis,	Drift,	Non-gas.	Fan,	12	4	3	80	1.5	Brazil,	Steam,		3	35,000	25,000	36,000	230
Anita Coal Mining Co.																
Anita No. 1,	Drift,	Non-gas.	Fan,	12	3.5	3	90	1.5	Stine,	Steam,		2	30,000	22,000	32,000	108
Summit Coal Co.																
Summit,	Drift,	Non-gas.	Fan,	6	1.5	2.5	50	1.0	Stine,	Steam,		1	28,000	16,000	30,000	77

Glenwood Coal Co.																	
Glenwood No. 3,	Drift,	Non-gas.	Furnace,									30	1	8,000	3,000	8,500	125
Glenwood No. 9,	Drift,		Furnace,									30	1	18,000	8,000	20,000	
Glenwood No. 11,	Drift,		Fan,										1	10,000	6,000	12,000	
Indiana Coal Co.																	
Indiana No. 3,	Drift,	Non-gas.	Furnace,									36	1	10,000	3,000	12,000	181
Indiana No. 4,	Drift,	Non-gas.	Furnace,									36	1	20,000	8,000	22,000	
Indiana No. 5,	Drift,	Non-gas.	Fan,	12	3.6	3.6	70		Brazil,	Steam,			1	35,000	10,000	38,000	
Indiana No. 7,	Drift,	Non-gas.	Fan,	12	3.5	3.5	120		Stine,	Steam,			1				
Indiana No. 8,	Drift,	Non-gas.	Furnace,									36	1	12,000	60,000	13,000	
Valier Coal Co.																	
Valier,	Drift,	Non-gas.	Fan,	6	1.5	2.5	50		Stine,	Steam,			2	20,000	10,000	22,000	51
Tearing Run Coal Co.																	
Tearing Run,	Drift,	Non-gas.	Fan,	10	3.5	3	100		Brazil,	Steam,			1	25,000	10,000	27,000	83
Bowersville Coal Co.																	
Hillman,	Drift,	Non-gas.	Fan,	18	6	4	75	1.0	Guibal,	Steam,			1	30,000	12,000	32,000	90
Bear Run Coal Co.																	
Bear Run,	Drift,	Non-gas.	Fan,	14	3.6	3.6	60		Brazil,	Steam,			2	40,000	15,000	42,000	69
Madeira-Hill Coal Mining Co.																	
Clover Run No. 1,	Drift,	Non-gas.	Furnace,									25		12,000	8,000	13,000	102
Clover Run No. 2,	Drift,	Non-gas.	Furnace,									25		11,000	6,000	12,000	
Graceton Coke Co.																	
Graceton No. 2,	Drift,	Non-gas.	Fan,	10	3.5	2.5				Compressed Air			1	22,000	10,000	24,000	67
			Fan,	7	2	2	80	.3	Stine,								
Graceton No. 3,	Drift,	Non-gas.	Fan,	14	5.5	5.8	54	1.0	Robinson,	Steam,			2	50,000	20,000	52,000	
S. A. Rinn and Co.																	
Walston No. 1,	Slope,	Non-gas.	Fan,	6	1.6	2.6	50		Stine,				1	20,000	10,000	22,000	41
Adrian No. 2,	Drift,	Non-gas.	Natural,										1	23,000	4,500	25,000	30
Cortez Coal Co.																	
Cortez,	Slope,	Non-gas.	Furnace,									25	2	16,000	8,000	17,000	41
Hillsdale Coal and Coke Co.																	
Hillsdale No. 2,	Drift,	Non-gas.	Furnace,									36		20,000	10,000	22,000	64
Hillsdale No. 3,	Drift,	Non-gas.	Furnace,									36		21,000	10,000	23,000	
Chestnut Ridge Coal Co.																	
Indiana No. 6,	Drift,	Non-gas.	Furnace,									36		18,000	8,000	20,000	37

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Clark Brothers Coal Mining Co.																
Falcon No. 5,	Drift,	Non-gas.	Furnace,													
Falcon No. 7,	Drift,	Non-gas.	Furnace,													
Falcon No. 8,	Drift,	Non-gas.	Furnace,													14

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Rochester and Pittsburg Coal and Iron Co.,	Adrian No. 1,	Slope,	Gaseous,	30	Compressed Air,	Lower Freeport,	72	84	38	1,002,458
	Florence No. 1,	Slope,	Gaseous,	35			72	84	48	
	Florence No. 2,	Drift,	Non-gas.	5			48	48	-----	
	Eleanora No. 2,	Slope,	Gaseous,	32			72	108	30	324,533
	Eleanora No. 3,	Drift,	Non-gas.	-----			48	48	----	
	Eleanora Shaft,	Shaft,	Gaseous,	20			72	108	30	
	Walston No. 3,	Slope,	Non-gas.	10			72	96	48	394,842
	Walston No. 6,	Drift,	Non-gas.	25			60	72	30	
	Walston No. 8,	Drift,	Non-gas.				60	72	30	
	Lucerne No. 1,	Shaft,	Non-gas.	25			63	72	30	215,204
	Lucerne No. 2,	Drift,	Non-gas.							
	Lucerne No. 3,	Drift,	Non-gas.							
Totals,				182						1,937,037
Cowanshannock Coal and Coke Co.,	Yatesboro No. 2,	Slope,	Non-gas.	75	Compressed Air,	Upper Freeport,	48	56	36	802,903
	Yatesboro No. 3,	Drift,	Non-gas.							
	Yatesboro No. 4,	Slope,	Non-gas.							
Totals,				75						

TABLE J—Continued

Names of Operators	Names of Mine	Kind of opening	Gaseous or non-gaseous	Number of mining machines	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Buffalo and Susquehanna Coal and Coke Co.,	Sagamore Nos. 11, 12, 13, 14, 15, 16, 17 and 18,	Drifts,	Non-gas.	40	Compressed Air,	Upper Freeport,	60	72	40	802,903
	B. and S. Shaft,	Shaft,	Gaseous,			Lower Freeport,	48	60	40	
Jefferson and Clearfield Coal and Iron Co.,	Ernest Nos. 1, 2, 3, 4 and 5,	Drifts,	Non-gas. and Gaseous	130	Compressed Air,	Upper Freeport,	69	72	60	794,931
Clearfield Bituminous Coal Corporation,	Canoe Ridge Nos. 2, 3 and 4	Drifts,	Non-gas.	55	Compressed Air,	Upper Freeport,	48	50	46	427,226
Cascade Coal and Coke Co.,	Sykesville Shaft,	Shaft,	Gaseous,	20	Compressed Air,	Lower Freeport,	60	72	46	283,196
Seneca Coal Co.,	Seneca,	Drift,	Non-gas.	25	Compressed Air,	Upper Freeport,	60	72	48	172,253
Urey Ridge Coal Co.,	Urey Nos. 1, 3 and 6,	Drifts,	Non-gas.	4	Electricity and Compressed Air,	Lower Freeport,	60	72	48	65,000
Wharton Coal and Coke Co.,	Wharton,	Slope,	Gaseous,	18	Compressed Air,	Upper Freeport,	60	72	48	70,519
John McLeavy and Co.,	Sholler,	Slope,	Non-gas.	8	Compressed Air,	Lower Freeport,	72	84	60	132,677

Punxsutawney Coal Mining Co.,	Francis,	Drift,	Non-gas.	10	Compressed Air,	Upper Freeport,	48	50	46	124,678
Anita Coal Mining Co.,	Anita No. 1,	Drift,	Non-gas.	5	Compressed Air,	Lower Freeport,	60	72	48	120,848
Summit Coal Co.,	Summit,	Drift,	Non-gas.	5	Compressed Air,	Upper Freeport,	48	50	46	102,000
Valier Coal Co.,	Valier,	Drift,	Non-gas.	6	Compressed Air,	Lower Freeport,	48	50	46	66,512
Bowersville Coal Co.,	Hillman,	Drift,	Non-gas.	4	Compressed Air,	Upper Freeport,	48	50	46	55,296
Bear Run Coal Co.,	Bear Run,	Drift,	Non-gas.	5	Compressed Air,	Lower Freeport,	48	50	46	54,421
Graceton Coke Co.,	Graceton Nos. 2 and 3,	Drifts,	Non-gas.	30	Compressed Air,	Upper Freeport,	50	56	44	13,984
Grand totals,				622						6,026,384

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Rochester and Pittsburg Coal and Iron Co.						
Adrian,	Jefferson,	A. W. Calloway,	Punxsutawney,	E. E. Hewitt,	DeLancey,	B. R. and P.
Florence Nos. 1 and 2,				R. B. Dick,	Anita,	
Eleanora Nos. 2, 3 and Shaft,				D. Fleming,	Eleanora,	
Walston Nos. 3, 6 and 8,				John Driscoll,	Walston,	
Lucerne Nos. 1, 2 and 3,	Indiana,	John Reed,	Reynoldsville,	Charles Cronk,	Homer City,	
Cowanshannock Coal and Coke Co.						
Yatesboro Nos. 2, 3 and 4,	Armstrong,	L. W. Robinson,	Rochester, N. Y.,	James Craig,	Yatesboro,	B. R. and P.
Buffalo and Susquehanna Coal and Coke Co.						
Sagamore Nos. 11, 12, 13, 14, 15, 16, 17 and 18,	Indiana, Armstrong,	C. P. Munch,	DuBois,	H. A. Moulder,	Sagamore,	B. and S.
B. and S. Shaft No. 3,	Jefferson,	C. P. Munch,	DuBois,	W. A. Shobert,	Onondaga,	B. and S.
Jefferson and Clearfield Coal and Iron Co.						
Ernest Nos. 1, 2, 3, 4 and 5,	Indiana,	John Reed,	Reynoldsville,	William Reed,	Ernest,	B. R. and P.
Clearfield Bituminous Coal Corporation						
Canoe Ridge Nos. 2, 3 and 4,	Indiana,	R. A. Shillingford,	Clearfield,	John Connor,	Rossiter,	N. Y. C. and H. R.
Pennsylvania Coal and Coke Co.						
Arcadia Nos. 40, 41, 42, 43, and 44,	Indiana,	James Marsteller,	Cresson,	A. O. Sommerville,	Arcadia,	N. Y. C. and H. R.
Cascade Coal and Coke Co.						
Sykesville Shaft,	Jefferson,	C. C. Gadd,	Sykesville,			B. and S.

Ellsworth-Dunham Coal Co.							
Victor Nos. 11 and 14,	Indiana,	E. H. Ellsworth,	Arcadia,				N. Y. C. and H. R.
Berwind-White Coal Mining Co.							
West Eureka Nos. 6 and 7,	Jefferson,	Thomas Fisher,	Philadelphia,	James Cook,	Horatio,		Pennsylvania
Seneca Coal Mining Co.							
Seneca,	Indiana,	Cyrus H. Polley,	Buffalo, N. Y.,	Joseph Ganley,	Chambersville,		B. R. and P.
Urey Ridge Coal Co.							
Urey Nos. 1, 3 and 6,	Indiana,	A. M. Riddell,	Glen Campbell,	Thomas Bellis,	Altoona,		Pennsylvania
Wharton Coal and Coke Co.							
Wharton,	Indiana,	T. G. Murray,	Coral,	John Fitzgerald,	Coral,		Pennsylvania
John McLeavy and Co.							
Sholler,	Jefferson,	John McLeavy,	Punxsutawney,				Pennsylvania
Punxsutawney Coal Mining Co.							
Francis,	Indiana,	W. S. Blaisdell,	Punxsutawney,	J. J. Ganley,	Punxsutawney,		B. R. and P.
Anita Coal Mining Co.							
Anita No. 1,	Jefferson,	W. S. Blaisdell,	Punxsutawney,	J. J. Ganley,	Punxsutawney,		Pennsylvania
Summit Coal Co.							
Summit,	Armstrong,	S. H. McHenry,	Punxsutawney,				B. R. and P.
Glenwood Coal Co.							
Glenwood Nos. 3, 9 and 11,	Indiana,	A. M. Riddell,	Glen Campbell,				Pennsylvania
Indiana Coal Co.							
Indiana Nos. 3, 4, 5, 7 and 8,	Indiana,	George Scott,	Philipsburg,				Penna. N. Y. C. and H. R.
Valier Coal Co.							
Valier,	Jefferson,	S. H. McHenry,	Punxsutawney,				B. R. and P.
Tearing Run Coal Co.							
Tearing Run,	Indiana,	G. H. Guthrie,	Indiana,	Joseph Campbell,	Homer City,		Pennsylvania
Bowersville Coal Co.							
Hillman,	Jefferson,	T. McMullen,	Punxsutawney,				Pennsylvania
Bear Run Coal Co.							
Bear Run,	Indiana,	T. R. Johns,	Punxsutawney,				Pennsylvania

TABLE I—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Madeira-Hill Coal Mining Co.						
Clover Run Nos. 1 and 2,	Clearfield,			James Grey,	Mahaffey,	Pennsylvania
Graceton Coke Co.						
Graceton Nos. 2 and 3,	Indiana,	E. M. Lingle,	Graceton,			Pennsylvania
S. A. Rinn and Co.						
Walston No. 1,	Jefferson,	S. H. McHenry,	Punxsutawney,			B. R. and P.
Adrian No. 2,						
Cortez Coal Co.						
Cortez,	Jefferson,			J. R. Hampson,	Anita,	Pennsylvania
Hillsdale Coal and Coke Co.						
Hillsdale Nos. 2 and 3,	Indiana,	J. O. Clark,	Glen Campbell,	D. B. Koozer,	Madeline,	N. Y. C. and H. R. and Penna.
Chestnut Ridge Coal Co.						
Indiana No. 6,	Indiana,	George Scott,	Philipsburg,			N. Y. C. and H. R.
Clark Brothers Coal Mining Co.						
Falcon Nos. 5, 7 and 8,	Indiana,	J. O. Clark,	Glen Campbell,	D. B. Koozer,	Madeline,	Pennsylvania

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Rochester and Pittsburg Coal and Iron Co.																
Adrian, Florence No. 1, Florence No. 2,	Jefferson,	842,947	44,000	4,099	254,620	1,145,666	145,693	512	261	1,332	1	10	99,250	4,975	--------	27
Eleanora No. 2, Eleanora No. 3, Eleanora Shaft,	Jefferson,	375,210	6,874	3,000	125,354	510,438	74,362	201	261	658	3	10	43,750	3,000	22,600	28
Walston No. 3, Walston No. 6, Walston No. 8,	Jefferson,	98,769	16,906	2,169	293,455	411,293	155,876	664	256	643	----	3	27,502	5,800	--------	17
Lucerne No. 1, Lucerne No. 2, Lucerne No. 3,	Indiana,	210,804	4,000	400	----------	215,204	----------	-----	200	409	----	3	--------	--------	--------	------
Totals,		1,527,730	71,774	9,668	673,429	2,282,601	375,931	1,377	------	3,042	4	26	170,502	13,775	22,600	72
Cowanshannock Coal and Coke Co.																
Yatesboro Nos. 2, 3, and 4.	Armstrong,	769,011	48,000	1,588	----------	818,599	----------	------	286	950	4	8	80,000	3,900	--------	------

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Buffalo and Susquehanna Coal and Coke Co.																
Sagamore Nos. 11, 12, 13, 14, 15, 16, 17 and 18,	Indiana, Armstrong,	551,305	24,000	2,854	.....	578,159	.....	.....	164	686	1	7	69,925	22,639	.....	33
B. and S. Shaft No. 3,	Jefferson,	215,517	8,202	1,025	.....	224,744	.....	.....	206	271	....	8	51,550	7,767	50	20
Totals,		766,822	32,202	3,879	.....	802,903	.....	.....	.....	957	1	15	121,475	30,406	50	53
Jefferson and Clearfield Coal and Iron Co.																
Ernest Nos. 1, 2, 3, 4 and 5,	Indiana,	735,717	31,020	2,214	26,000	794,951	17,946	278	200	1,013	3	6	165,000	.....	.....	.....
Clearfield Bituminous Coal Corporation																
Canoe Ridge Nos. 2, 3 and 4,	Indiana,	469,119	14,589	5,348	.....	489,056	.....	.....	185	754	1	2	108,800	400	.....	11
Pennsylvania Coal and Coke Co.																
Arcadia Nos. 40, 41, 42, 43 and 44,	Indiana,	338,563	1,082	1,318	.....	340,963	.....	.....	118	734	1	1	77,200	1,575	.....	53
Cascade Coal and Coke Co.																
Sykesville Shaft,	Jefferson,	84,344	17,912	1,851	179,089	283,196	123,108	200	295	307	....	9	18,725	14,695	.....	5
Ellsworth-Dunham Coal Co.																
Victor Nos. 11 and 14,	Indiana,	188,741	988	1,169	.....	190,898	.....	.....	234	246	....	3	42,125	550	.....	1

Berwind-White Coal Mining Co.																	
West Eureka Nos. 6 and 7,	Jefferson,	145,544	27,926	104		173,574			155	216	1	1	54,375	125			36
Seneca Coal Mining Co.																	
Seneca,	Indiana,	166,894	4,604	755		172,253			209	205			12,000	700			
Urey Ridge Coal Co.																	
Urey Nos. 1, 3 and 6,	Indiana,	169,226	650	417		170,293			222	223			52,080				34
Wharton Coal and Coke Co.																	
Wharton,	Indiana,	52,968	8,868	1,024	75,385	138,245	42,210	300	276	153	2	1	30,000	2,000			18
John McLeavy and Co.																	
Sholler,	Jefferson,	130,802	1,674	201		132,677			165	114		2	30,000				19
Punxsutawney Coal Mining Co.																	
Francis,	Indiana,	120,031	4,037	610		124,678			252	248		1	29,900	1,200			
Anita Coal Mining Co.																	
Anita No. 1,	Jefferson,	118,292	2,556			120,848			179	124		3	20,200				23
Summit Coal Co.																	
Summit,	Armstrong,	98,500	4,500			103,000			221	82							17
Glenwood Coal Co.																	
Glenwood Nos. 3, 9 and 11,	Indiana,	91,223	790	852		92,865			237	133	1		32,800				11
Indiana Coal Co.																	
Indiana Nos. 3, 4, 5, 7 and 8,	Indiana,	79,988	347	265		80,600			101	196	1		23,175	200			25
Valier Coal Co.																	
Valier,	Jefferson,	63,512	3,000			66,512			210	57							14
Tearing Run Coal Co.																	
Tearing Run,	Indiana,	57,961	462	268		58,691			236	97			17,600				6
Bowersville Coal Co.																	
Hillman,	Jefferson,	53,111	1,885	300		55,296				100	1	1	17,500				7
Bear Run Coal Co.																	
Bear Run,	Indiana,	53,735	365	321		54,421			170	78			12,500	300			8
Madeira-Hill Coal Mining Co.																	
Clover Run Nos. 1 and 2,	Clearfield,	53,617	155	505		54,277			172	119			16,000	4,200			8
Graceton Coke Co.																	
Graceton Nos. 2 and 3,	Indiana,	49	5,868	908	47,106	53,931	28,883	202	197	158	2	1	7,925	300	250		38

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
S. A. Rinn and Co.																
Walston No. 1,	Jefferson,	41,200	2,500			43,700			200	46						12
Adrian No. 2,	Jefferson,	3,557				3,557			35	32						2
Totals,		44,757	2,500			47,257				78						14
Cortez Coal Co.																
Cortez,	Jefferson,	32,225				32,225			212	45	1					4
Hillsdale Coal and Coke Co.																
Hillsdale Nos. 2 and 3,	Indiana,	24,358	148			24,506			105	72			78,000			8
Chestnut Ridge Coal Co.																
Indiana No. 6,	Indiana,	5,077				5,077			40	42			1,375			5
Clark Brothers Coal Mining Co.																
Falcon Nos. 5, 7 and 8,	Indiana,	4,070				4,070			53	15			1,045			3
Grand totals,		6,445,987	287,902	33,565	1,001,009	7,768,463	588,078	2,357		10,558	23	80	1220302	74,326	22,900	493

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers: Cylindrical	Number of Boilers: Horse power	Number of Boilers: Tubular	Number of Boilers: Horse power	Number of Boilers: Total horse power	Locomotives: Steam	Locomotives: Air	Locomotives: Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
Rochester and Pittsburg Coal and Iron Co.,	Jefferson, Indiana,	2	60	96	11,820	11,880	8		55	39	6,425	36	39,500	13,450	17	31
Cowanshannock Coal and Coke Co.,	Armstrong,			12	4,600	4,600			18	5	4,200	6	4,750	2,000	18	10
Buffalo and Susquehanna Coal and Coke Co.,	Indiana, Armstrong, Jefferson,	10	350	4	3,500	3,850			5	14	7,783	13	2,000	1,200	4	6
Jefferson and Clearfield Coal and Iron Co.,	Indiana,			20	5,050	5,050			23	7	2,000	8	1,100	575	5	7
Clearfield Bituminous Coal Corporation,	Indiana,			12	1,800	1,800			14	6	1,075				4	4
Pennsylvania Coal and Coke Co.,	Indiana,			6	330	330			2	2	225	2	300	200	1	1
Cascade Coal and Coke Co.,	Jefferson,			4	1,208	1,208			5	4	900	2	4,800	800	2	2
Ellsworth-Dunham Coal Co.,	Indiana,			5	750	750			4	5	875	1	200	117	2	
Berwind-White Coal Mining Co.,	Jefferson,			19	2,700	2,700				5	850	11	5,746	3,100		5
Seneca Coal Mining Co.,	Indiana,			4	600	600			4	3	335				1	2
Urey Ridge Coal Co.,	Indiana,			2	160	160										1
Wharton Coal and Coke Co.,	Indiana,			6	900	900				5	900	2	887	500	2	2
John McLeavy and Co.,	Jefferson,			2	220	220				2	330					2
Punxsutawney Coal Mining Co.,	Indiana,			4	550	550			3	3	220	3	200	200	2	2
Anita Coal Mining Co.,	Jefferson,			2	300	300				2	120	2	70	70		1
Summit Coal Co.,	Armstrong,			2	150	150			1	2	250					1
Glenwood Coal Co.,	Indiana,			2	300	300									2	
Indiana Coal Co.,	Indiana,	3	425			425				3	175					
Valier Coal Co.,	Jefferson,			2	100	100				1	30					2
Tearing Run Coal Co.,	Indiana,			2	165	165						1	100	50		1
Bowersville Coal Co.,	Jefferson,			5	385	385				4	320	1	360	360		2

TABLE 2.—Part 2—Continued

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Bear Run Coal Co.,	Indiana,			1	150	150										1
Madeira-Hill Coal Mining Co.,	Clearfield,			2	300	300			1	1	150	6	300	190	1	
Graceton Coke Co.,	Indiana,			11	1,345	1,345	1			17	1,598	2	650		2	3
S. A. Rinn and Co.,	Jefferson,			1	50	50				1	80					
Totals,		15	835	224	37,433	38,268	9		135	131	28,841	96	60,957	22,812	63	86

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Door boys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Rochester and Pittsburg Coal and Iron Co.,	Jefferson, Indiana,	12	3	7	403	178	1,152	178	111	35	134	43	2,256	6	7	42	106	371	5	249	786	3,042
Cowanshannock Coal and Coke Co.,	Armstrong,	4	....	1	80	50	450	50	30	15	100	22	802	1	1	15	25	....	6	100	148	950
Buffalo and Susquehanna Coal and Coke Co.,	Indiana, Armstrong, Jefferson,	8	5	3	.....	75	519	75	32	9	72	.....	798	2	4	11	19	....	7	116	159	957
Jefferson and Clearfield Coal and Iron Co.,	Indiana,	5	....	2	.....	7	610	7	2	1	81	38	753	1	1	26	25	81	....	126	260	1,013
Clearfield Bituminous Coal Corporation,	Indiana,	3	3	....	490	41	42	41	2	16	59	.....	697	1	1	7	9	2	....	37	57	754
Pennsylvania Coal and Coke Co.,	Indiana,	5	....	....	601	.....	.....	.....	28	12	32	6	684	1	....	7	3	....	3	36	50	734
Cascade Coal and Coke Co.,	Jefferson,	1	1	2	86	8	79	8	10	.....	29	1	225	1	1	3	5	51	2	19	82	307
Ellsworth-Dunham Coal Co.,	Indiana,	1	....	....	208	.....	.....	.....	10	5	3	.....	227	1	....	2	3	....	1	12	19	246
Berwind-White Coal Mining Co.,	Jefferson,	2	....	2	.....	13	129	13	13	1	2	9	184	1	....	2	17	....	2	10	32	216
Seneca Coal Mining Co.,	Indiana,	1	....	....	.....	8	140	8	8	.....	12	.....	177	1	....	3	4	....	1	19	28	205
Urey Ridge Coal Co.,	Indiana,	3	1	....	103	6	69	6	15	2	4	.....	209	1	....	3	1	....	1	8	14	223
Wharton Coal and Coke Co.,	Indiana,	1	....	1	34	18	18	.....	7	1	6	6	92	2	1	4	6	40	3	5	61	153
John McLeavy and Co.,	Jefferson,	1	....	....	62	5	16	5	7	2	2	1	101	1	....	1	3	....	1	7	13	114
Punxsutawney Coal Mining Co.,	Indiana,	1	....	....	98	10	100	10	6	1	4	.....	230	1	....	2	5	....	1	9	18	248
Anita Coal Mining Co.,	Jefferson,	1	....	....	50	3	39	3	7	1	2	2	108	1	....	2	3	....	1	9	16	124
Summit Coal Co.,	Armstrong,	1	....	....	.....	4	60	4	5	1	1	1	77	1	....	....	2	....	1	1	5	82
Glenwood Coal Co.,	Indiana,	2	....	....	120	.....	.....	.....	2	.....	1	.....	125	1	....	1	1	....	1	4	8	133
Indiana Coal Co.,	Indiana,	5	....	....	159	.....	.....	.....	10	1	4	2	181	....	....	2	2	....	2	9	15	196

TABLE 3.—Continued

Names of Operators	County	Inside												Outside									
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Valier Coal Co.,	Jefferson,	1	----	----	------	3	38	3	3	1	1	1	51	1	----	1	2	----	1	1	6	57
Tearing Run Coal Co.,	Indiana,	1	----	----	68	2	2	------	7	------	3	------	83	2	1	1	4	----	1	5	14	97
Bowersville Coal Co.,	Jefferson,	1	----	----	------	6	55	6	2	------	4	16	90	1	1	1	3	----	1	3	10	100
Bear Run Coal Co.,	Indiana,	1	----	----	------	3	57	3	3	1	1	------	69	1	----	1	2	----	1	4	9	78
Madeira-Hill Coal Mining Co.	Clearfield,	2	----	----	91	------	------	------	4	------	2	3	102	1	2	2	1	----	1	10	17	119
Graceton Coke Co.,	Indiana,	2	1	----	30	12	------	12	6	------	4	------	67	----	7	7	6	33	3	35	91	158
S. A. Rinn and Co.,	Jefferson,	2	----	----	61	------	------	------	4	1	3	------	71	1	----	1	1	----	1	3	7	78
Cortez Coal Co.,	Jefferson,	1	----	----	35	------	------	------	4	------	1	------	41	1	----	----	----	----	----	3	4	45
Hillsdale Coal and Coke Co.	Indiana,	2	----	----	55	------	------	------	5	------	2	------	64	1	----	----	----	----	2	5	8	72
Chestnut Ridge Coal Co.,	Indiana,	1	----	----	34	------	------	------	2	------	------	------	37	1	----	1	----	----	1	2	5	42
Clark Brothers Coal Mining Co.,	Indiana,	1	----	----	13	------	------	------	------	------	------	------	14	1	----	----	----	----	----	------	1	15
Totals,		72	14	18	2,881	452	3,575	432	345	106	569	151	8,615	35	27	148	258	578	50	847	1,943	10,558

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Rochester and Pittsburg Coal and Iron Co.,	Indiana and Jefferson.	16	16	19	18	16	18	19	21	24	25	24	25	241
Cowanshannock Coal and Coke Co.,	Armstrong,	17	18	24	20	26	26	26	26	26	26	25	26	286
Buffalo and Susquehanna Coal and Coke Co.,	Indiana, Armstrong, Jefferson,	18	19	15	14	11	13	12	15	22	14	16	16	185
Jefferson and Clearfield Coal and Iron Co.,	Indiana,	20	14	17	18	16	16	21	22	23	23	24	22	236
Clearfield Bituminous Coal Corporation,	Indiana,	18	19	16	9	9	14	3	9	18	17	25	26	183
Pennsylvania Coal and Coke Co.,	Indiana,	9	6	12	6	6	5	4	7	13	16	18	19	121
Cascade Coal and Coke Co.,	Jefferson,	24	21	27	25	21	22	25	22	22	21	22	23	275
Ellsworth-Dunham Coal Co.,	Indiana,	14	16	20	17	17	15	15	23	24	25	25	25	236
Berwind-White Coal Mining Co.,	Jefferson,	8	13	18	11	12	9	12	11	13	12	18	17	154
Seneca Coal Mining Co.,	Indiana,	20	14	13	11	12	15	19	17	18	20	24	26	209
Urey Ridge Coal Co.,	Indiana,	21	20	26	23	14	12	12	16	21	16	18	22	221
Wharton Coal and Coke Co.,	Indiana,	24	21	26	25	22	22	25	22	22	22	22	23	276
John McLeavy and Co.,	Jefferson,	9	10	11	9	10	6	11	13	17	24	20	25	165
Punxsutawney Coal Mining Co.,	Indiana,	19	13	25	23	18	20	12	26	25	25	26	26	252
Anita Coal Mining Co.,	Jefferson,	12	11	10	12	11	9	9	11	19	25	24	26	179
Summit Coal Co.,	Armstrong,	15	10	20	10	15	20	15	20	22	24	25	25	221
Glenwood Coal Co.,	Indiana,	20	20	24	18	15	10	14	20	19	19	18	20	217
Indiana Coal Co.,	Indiana,	10	7	7	4	5	5	4	10	16	10	12	15	105
Valier Coal Co.,	Jefferson,	15	20	10	10	12	14	15	20	22	23	24	25	210
Tearing Run Coal Co.,	Indiana,	26	17	6	19	20	19	14	16	25	23	25	26	236
Bowersville Coal Co.,	Jefferson,	24	21	27	19	14	19	24	22	24	27	25	23	269
Bear Run Coal Co.,	Indiana,	15	21	15	5	13	11	9	9	20	18	14	22	172
Madeira-Hill Coal Mining Co.,	Clearfield,	23	22	25	25	23	24	18	24	24	22	23	23	276
Graceton Coke Co.,	Indiana,	14	13	14	12	10	11	18	18	20	21	25	26	202
S. A. Rinn and Co.,	Jefferson,	5	5	8	6	8	9	9	9	11	11	15	22	118
Cortez Coal Co.,	Jefferson,	20	20	21	20	16	18	20	22	21	22	20	18	238
Hillsdale Coal and Coke Co.,	Indiana,	8	9	9	13	8	8	8	7	7	12	20	17	116
Chestnut Ridge Coal Co.,	Indiana,	------	------	------	------	------	------	------	------	------	------	18	22	40
Clark Brothers Coal Mining Co.,	Indiana,	4	------	2	2	4	3	4	10	10	12	8	8	67

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 3	Nicholas Tomasina,	Italian,	Driver,	28	S			Ernest No. 5,	Indiana,	Killed by mine cars on heading.
March 2	Joseph Poliski,	Lithuanian,	Miner,	40	M	1	5	Sagamore No. 13,	Armstrong,	Killed by fall of coal from a pillar.
April 9	Clair Connor,	American,	Miner,	20	S			Glenwood No. 11,	Indiana,	Fatally burned by explosion of can of powder.
23	Ricardo Bovalsto,	Italian,	Miner,	24	S			Yatesboro No. 3,	Armstrong,	Killed by fall of roof at face of room.
	Thomas Lindsey,	Scotch,	Doorboy,	16	S			Florence No. 1,	Jefferson,	Killed by mine cars on slope.
June 29	Maleposa Sabatino,	Italian,	Miner,	34	S			Wharton,	Indiana,	Killed by fall of top coal at face of his room.
July 19	Dominic Regino,	Italian,	Miner,	19	S			Eleanora No. 2,	Jefferson,	Killed by fall of coal from a stump.
Aug. 7	Edward Siverling,	American,	Miner,	47	M	1	5	Cortez,	Jefferson,	Killed by fall of roof at a pillar.
16	Mike Fatad,	Slavonian,	Miner,	26	M	1	1	Ernest No. 2,	Indiana,	Killed by fall of coal at face of heading.
17	Angelo Gallo,	Italian,	Miner,	31	S			Ernest No. 1,	Indiana,	Killed by fall of coal from a pillar.
24	Joseph Urenus,	Croatian,	Miner,	23	S			Wharton,	Indiana,	Killed by fall of top coal at face of room.
Sept. 14	Tony Urko,	Polish,	Miner,	38	M	1	3	Eleanora No. 3,	Jefferson,	Killed by fall of roof while pulling heading stumps.
	W. A. Lewis,	American,	Company man.	21	S			Yatesboro No. 2,	Armstrong,	Killed by coming in contact with electric wire.
20	Joseph Ban,	Italian,	Miner,	43	M	1	5	Indiana No. 5,	Indiana,	Killed by fall of roof near face of room.
29	John Yurko,	Slavonian,	Machine cutter,	36	M	1	7	West Eureka No. 7,	Jefferson,	Fatally burned by explosion of gas cutting through a pillar.
Nov. 6	John H. Faith,	American,	Machine cutter,	35	M	1	4	Graceton No. 3,	Indiana,	Killed by fall of roof while cutting at face of room.
	John Rebovoc,	Slavonian,	Scraper,	27	M	1				
18	Roy Kellar,	American,	Driver,	16	S			Hillman,	Jefferson,	Killed by mine cars on heading.
19	Bogomy Augurty,	Polish,	Scraper,	40	M	1	6	Canoe Ridge No. 4,	Indiana,	Killed by mine car. Outside.
27	Joseph Tanerack,	Italian,	Miner,	37	S			Eleanora Shaft,	Jefferson,	Killed by mine timber falling, on heading.
Dec. 7	Melvin Cessna,	American,	Miner,	25	S			Yatesboro No. 2,	Armstrong,	Killed by fall of roof at room face.
15	Rosea Josea,	Austrian,	Miner,	19	S			Yatesboro No. 3,	Armstrong,	Killed by fall of roof at room face.
	Frank Kuchok,	Polish,	Miner,	26	S			Arcadia No. 40,	Indiana,	Killed by fall of coal at face of room.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	4	Tony Smelko,	Polish,	Loader,	35	M	Eleanora Shaft,		Pelvis fractured by being struck by fall of coal at face of room.
	6	John Boldy,	Slavonian,	Loader,	26	M	Florence No. 1,		Hip and thigh injured by fall of coal at face of room.
		Evan Moline,	Swedish,	Loader,	22	S	Florence No. 1,		Hip bruised and bone fractured by fall of bone coal at face of room.
	9	George Cowie,	Scotch,	Employe,	30	M	Eleanora No. 2,		Collar bone broken by fall of coal at face of room.
	16	George Lewberton,	Slavonian,	Miner,	22	S	Sykesville Shaft,	Jefferson,	Slightly injured by a small explosion of gas at inside clay vein on heading.
	19	Orey Styres,	American,	Loader,	19	S	Eleanora No. 2,		Leg broken in jumping from a car on slope.
	20	Peter Bonjvan,	Italian,	Miner,	38	M	Florence No. 2,		Back injured by fall of slate while undercutting at face of room.
	20	Thomas Williams,	Welsh,	Driver,	36	M	B. and S. Shaft, No. 3.		Foot bruised by mine car on heading.
	22	Peter Gorchenski,	Polish,	Scraper,	27	S	B. and S. Shaft, No. 3.		Hip dislocated by mine car on heading.
Feb.	1	Frank Benedict,	Italian,	Loader,	38	M	Eleanora Shaft,		Small bone in leg broken by fall of coal in room.
	11	Luigi Paravello,	Italian,	Miner,	24	S	Yatesboro No. 2,	Armstrong,	Leg broken by fall of coal.
	12	A. Covitcha,	Italian,	Miner,	34	M	Sagamore No. 16,	Armstrong,	Leg cut by fall of bone coal at face of his room.
		Mike Sirk,	American,	Loader,	19	S	Walston No. 6,	Jefferson,	Leg broken by fall of coal at face of room.
	18	Charles Richards,	American,	Driver,	28	M	B. and S. Shaft No. 3.	Jefferson,	Body badly bruised. He fell off bumpers of cars as a trip was being swung into the heading.
	23	Edward McGowan,	American,	Miner,	24	S	B. and S. Shaft No. 3.	Jefferson,	Ankle bruised. Caught between bumpers of cars at sidetrack.
	25	Jake Beller,	Italian,	Scraper,	19	S	Eleanora Shaft,	Jefferson,	Ankle sprained by fall of coal at face of room.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 25	James Mallish,	Croatian,	Miner,	30	M	Victor No. 11,	Indiana,	Face and hand burned by explosion of cartridge.
March 17	William Shaum,	American,	Miner,	24	S	Sagamore No. 13,	Armstrong,	Two fingers cut off. The car jumped the track and caught his fingers against the roof.
20	Andy Urgas,	Hungarian,	Miner,	41	M	Ernest No. 5,	Indiana,	Body squeezed between mine car and roof on heading.
29	Vincento Silno,	Italian,	Loader,	28	S	Yatesboro No. 3,	Armstrong,	Collar bone broken. The car jumped the track.
April 6	Thomas Calbert, Jr.,	Italian,	Miner,	21	S	Sykesville Shaft,	Jefferson,	Fingers smashed between mine car and switch on heading.
	William Patterson,	Scotch,	Employe,	29	M	Sagamore No. 15,	Armstrong,	Shocked from coming in contact with electric wire on heading.
12	Daniel Hartsel,	American,	Miner,	20	S	Sykesville Shaft,	Jefferson,	Leg broken by fall of coal in room.
21	George Cingugone,	Italian,	Miner,	29	M	Yatesboro No. 2,	Armstrong,	Leg broken. He fell between mine cars on heading.
24	Paul Bulina,	Slavonian,	Miner,	27	M	Yatesboro No. 2,	Armstrong,	Back broken. He was scraping for machine at face of room and coal fell on him.
May 8	Stanley Zemmski,	Lithuanian,	Miner,	27	M	Ernest No. 3,	Indiana,	Finger cut off. Caught between two motors on heading.
25	Joseph Cascenti,	Italian,	Scraper,	23	S	Walston No. 3,	Jefferson,	Injured by fall of coal at face of room.
29	Mike Munasko,	American,	Employe,	34	M	Ernest No. 3,	Indiana,	Hips squeezed between cars and timber on heading.
30	Enoch Simon,	Lithuanian,	Miner,	38	M	Sykesville Shaft,	Jefferson,	Leg injured by flying coal from a shot in room.
June 2	Clyde Gay,	American,	Miner,	17	S	Sykesville Shaft,	Jefferson,	Scalp wounded from fall of draw slate at face of room.
19	Francis Whinnie,	Scotch,	Employe,	62	M	B and S. No. 3, Shaft.	Jefferson,	Back injured by fall of slate in cross-cut.
28	Andy Zuby,	Slavonian,	Loader,	43	M	Florence No. 1,	Jefferson,	Leg injured by mine car on heading.
29	Joseph Heitzer,	American,	Loader,	19	S	Florence No. 1,	Jefferson,	Skull fractured by fall of sandrock in his room.

July	2	Falavis Delacorte,	Italian,	Miner,	30	M	Yatesboro No. 2,	Armstrong,	Collar bone broken by fall of coal from pillar.
		Mike Mataish,	Slavonian,	Miner,	31	M	Ernest No. 2,	Indiana,	Foot injured by fall of roof in room.
	8	Pete Bellum,	Italian,	Machine cutter,	35	S	Eleanora Shaft,	Jefferson,	Face and eyes injured. They put two sticks of carbonite in a hole; one went off, but the other did not. The next day they struck the cap, exploding the carbonite.
		Jake Bellum,	Italian,	Loader,	23	S			
	9	Angelo Domenic,	Italian,	Miner,	24	M	Sykesville Shaft,	Jefferson,	Leg bruised by fall of cross bar and coal on heading.
	14	Peter Melord,	Italian,	Miner,	25	S	Florence No. 2,	Jefferson,	Leg broken by fall of coal at face of room.
	20	Fred Keller,	American,	Driver,	30	M	Hillman,	Jefferson,	Chest squeezed between car and door on heading.
	23	Samuel Bartoletto,	Italian,	Loader,	28	S	Yatesboro No. 2,	Armstrong,	Collar bone broken by being caught between car and rib on heading.
	26	Nick Gorman,	Irish,	Loader,	40	M	Eleanora Shaft,	Jefferson,	Neck cut by fall of bone coal at face of room.
		Sandy Waifra,	Italian,	Loader,	30	M	Eleanora Shaft,	Jefferson,	Ankle bruised by coal settling on it at face of room.
	27	Joseph Bruskonic,	Slavonian,	Miner,	71	M	Sholler,	Jefferson,	Rib broken by being caught between cars on heading.
Aug.	4	Frank Drago,	Italian,	Miner,	28	S	Florence No. 2,	Jefferson,	Leg broken by fall of draw slate at face of room.
		Joseph Gasper,	Slavonian,	Miner,	26	M	Sykesville Shaft,	Jefferson,	Leg broken by being caught between mine cars on heading.
	11	George Swanson,	Slavonian,	Miner,	19	S	Arcadia No. 40,	Indiana,	Leg broken by falling under mine cars on heading.
	25	Frank Butzel,	Italian,	Miner,	24	S	Sykesville Shaft,	Jefferson,	Back broken by fall of roof at face of his room.
Sept.	8	John Mason,	American,	Loader,	32	S	Florence No. 1,	Jefferson,	Leg broken by fall of coal from a pillar.
	10	John Long,	Slavonian,	Miner,	39	S	Ernest No. 3,	Indiana,	Leg broken. Caught between cars at mouth of his room.
	14	Steve Bunish,	Slavonian,	Scraper,	27	S	Sagamore No. 17,	Armstrong,	Leg bruised by fall of top coal in room.
	22	Harvey Shaffer,	American,	Miner,	30	M	Sagamore No. 17,	Armstrong,	Leg bruised. Caught between mine cars at mouth of room.
	29	Steve Wayo,	Slavonian,	Scraper,	44	M	West Eureka No. 7,	Jefferson,	Burned by gas and injured by falling coal in pillar.
	30	Hans Larson,	Swedish,	Loader,	16	S	Anita No. 1,	Jefferson,	Jaw broken. Kicked by mule on heading.
		Charles Pollick,	American,	Employe,	24	S	Eleanora No. 2,	Jefferson,	Jaw broken. He was thrown between mine cars on sidetrack.
Oct.	4	Tony Calso,	Italian,	Miner,	46	M	Canoe Ridge No. 4,	Indiana,	Leg and arm broken by fall of coal from heading stump.
	5	Oscar Pearson,	American,	Loader,	20	S	Florence No. 1,	Jefferson,	Foot injured by fall of roof in room.
		Charles Pearson,	American,	Loader,	18	S			Head cut by fall of roof in room.
	6	J. W. Vandervoort,	American,	Employe,	52	M	Canoe Ridge No. 1,	Jefferson,	Ribs broken. Knocked off tipple by mine car. Outside.
	13	Thomas Adams,	Italian,	Driver,	37	M	Anita No. 1,	Jefferson,	Shoulder bruised. Squeezed between car and rib on heading.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Oct. 15	Nick Bonjeon,	Italian,	Miner,	34	M	Lucerne No. 1,	Indiana,	Leg broken. Machine truck fell on him on heading.
29	John Shell,	Slavonian,	Miner,	31	M	Ernest No. 2,	Indiana,	Leg broken by fall of coal at face of room.
Nov. 5	Francis Whinnie,	English,	Employe,	55	M	B. and S. Shaft No. 3.	Jefferson,	Foot injured by being caught between bumpers of mine car at foot of shaft.
9	Angelo Wincovi,	Italian,	Miner,	28	M	Lucerne No. 1,	Indiana,	Leg broken by fall of top coal in room.
	Sam Ferino,	Italian,	Miner,	45	M	Sholler,	Jefferson,	Foot smashed by fall of bone coal in room.
10	George Hockenbery,	American,	Employe,	18	S	Graceton No. 3,	Indiana,	Arm broken. He fell down tipple stairs. Outside.
18	Philip Rork,	Italian,	Motorman,	30	M	Victor No. 11,	Indiana,	Head cut by striking the roof of heading.
19	Linus Anderson,	Swedish,	Miner,	48	M	Anita No. 1,	Jefferson,	Leg bruised between bumpers of car on heading.
	Charles Chuckett,	American,	Miner,	17	S	Sagamore No. 17,	Armstrong,	Finger cut off by a piece of bone coal falling back on it at face of room.
20	George Stepic,	Austrian,	Miner,	28	S	Victor No. 11,	Indiana,	Head cut by fall of bone coal at face of room.
23	Andy Fins,	Irish,	Miner,	75	M	Sagamore No. 17,	Armstrong,	Knee dislocated by being struck by flying coal from a shot at face of room.
	Geuseppi Succo,	Italian,	Miner,	37	S	Yatesboro No. 2,	Armstrong,	Hips crushed between motor and pillar on heading.
29	Lester Patterson,	American,	Employe,	28	M	Francis,	Indiana,	Finger broken by being caught between motor and mine car on heading.
30	Philip Sumack,	Italian,	Miner,	21	S	Lucerne No. 2,	Indiana,	Leg broken by fall of coal in room.
Dec. 2	Andy Elchok,	Slavonian,	Miner,	28	M	Sykesville Shaft,	Jefferson,	Eyes injured from a shot he thought he had not lighted, at face of room.
22	Joseph Balcoskey	Polish,	Miner,	31	M	B. and S. Shaft No. 3.	Jefferson,	Pelvis bone broken by mine car at foot of shaft.
	Joseph Yetchick,	Polish,	Miner,	27	S			Injured internally by mine car at foot of shaft.

Dec.	22	Thomas Lombard,	Italian,	Employe,	19	S	Yatesboro No. 4,	Armstrong,	Leg broken. He was knocked off his motor on heading by electric shock.
	23	Thomas Paressa,	Italian,	Miner,	45	M	Walston No. 6,	Jefferson,	Leg broken by being caught between bumpers of mine car on heading.
	31	Godfrey Stifer,	American,	Miner,	32	M	Wharton,	Indiana,	Ankle sprained and hand cut by fall of coal in room.

CONDITION OF MINES

ROCHESTER AND PITTSBURG COAL AND IRON COMPANY

This company still continues to lead in the production of coal and coke in the district. All of their mines worked during the year. The Adrian mine was visited at different intervals and was always found in good condition as regards ventilation and drainage; it is one of the company's largest producers.

Florence Nos. 1 and 2.—In good condition as regards ventilation and drainage.

Eleanora Nos. 1 and 2.—Drainage and ventilation were always up to the standard.

Eleanora Shaft is worked exclusively with locked safety lamps and the number of lamps in use runs from 150 to 170 per day; a few employes are at work on the night shift. They have put in a sprinkling system in the headings going to the west and north, and have the system partly installed on the east side of the shaft and in the shaft and the headings leading off these. They sprinkle the faces, sides, and slack coal in the rooms. There are also shot-firers employed to do the shooting and one of the permissible explosives, Coalite, is used, but so far as I can see there is no difference in the size of the coal blasted, as it is a question of gauging the proper amount of powder for each shot, which cannot always be done. The general condition of the mine was good, and everything was being done to keep the mine safe.

Walston No. 3.—Is almost exhausted and no solid work is being driven. Most of it is retreating work with the pillars and stumps. The mine is in good condition as a whole. They are opening another mine close to No. 8. These mines are located in Jefferson county. The company has started at Lucerne, Indiana county, a large operation, consisting of a shaft and two drifts, connected inside. A large area of work is opened up.

COWANSHANNOCK COAL AND COKE COMPANY

Yatesboro Nos. 2, 3 and 4.—Drainage and ventilation were always good.

BUFFALO AND SUSQUEHANNA COAL AND COKE COMPANY

At Sagamore, where the large operations of this company are located, the mines have worked reasonably well during the year. The ventilation was good. Each mine has a modern Clifford fan, run by electricity, and the fans are all run at the same speed. Drainage was also good.

At the B. and S. Shaft No. 3 the condition of the drainage and ventilation was good.

JEFFERSON AND CLEARFIELD COAL AND IRON COMPANY

Ernest Nos. 1, 2, 3, 4 and 5.—In good condition as to ventilation and drainage. Nos. 1, 2, 3 and 4 mines are connected and the ventilation is produced by Capell, Robinson and Stine fans.

CLEARFIELD BITUMINOUS COAL CORPORATION

Canoe Ridge Nos. 2, 3 and 4.—In good condition as to ventilation and drainage.

PENNSYLVANIA COAL AND COKE COMPANY

Arcadia Nos. 40, 41, 42, 43 and 44.—These are drift mines. They were in very fair condition. The company is making an effort to improve the condition, so as to come fully up to the requirements of the law.

BERWIND-WHITE COAL MINING COMPANY

West Eureka Nos. 6 and 7.—In good condition. The No. 6 mine did not ship any coal, but mined only enough to keep the compressors and steam engines going to keep the mines free from water.

The No. 7 mine has not driven any solid work during the year, but the work has been confined to the drawing of pillars and stumps and working some rooms.

CASCADE COAL AND COKE COMPANY

Sykesville Shaft.—Drainage and ventilation good.

ELLSWORTH-DUNHAM COAL COMPANY

Victor Nos. 11 and 14.—In good condition. Only a few men at work in the slope portion of the mine adjoining No. 11.

SENECA COAL MINING COMPANY

Seneca.—Ventilation and drainage good. This is getting to be quite a large mine.

JOHN McLEAVY AND COMPANY

Sholler.—In good condition.

UREY RIDGE COAL COMPANY

Urey Ridge Nos. 1, 3 and 6.—In good condition as to ventilation and drainage.

INDIANA COAL COMPANY

Indiana Nos. 3. 4, 5, 7 and 8.—Some of the mines of this company worked during the year and some were idle. As a rule they were found in good condition as to ventilation and drainage.

GLENWOOD COAL COMPANY

Glenwood Nos. 3, 9 and 11.—Nos. 3 and 9 mines are nearly worked out. They are working the upper vein and are also going to start up some of the old mines. The general condition of the mines was good.

ANITA COAL MINING COMPANY

Anita No. 1.—Ventilation and drainage good.

PUNXSUTAWNEY COAL MINING COMPANY

Francis.—Ventilation and drainage good. They have driven a great deal of heading at this mine and have increased their haulage capacity, and are now shipping a large amount of coal.

BOWERSVILLE COAL COMPANY

Hillman.—Ventilation and drainage good.

S. A. RINN AND COMPANY

Walston No. 1.—This mine is now on the retreat in both the slope and the drift. Drainage and ventilation good.

Adrain No. 2.—This mine has been reopened after having been closed for a number of years. They are taking out the pillars and the solid coal that was left. The mine was in good condition when visited.

BEAR RUN COAL COMPANY

Bear Run.—Ventilation and drainage good. They have cut into the old mine at upper end of the workings.

SUMMIT COAL COMPANY

Summit.—The general condition was good.

CORTEZ COAL COMPANY

Cortez.—Ventilation fair. Drainage was poor on account of the old workings that they cut into so often.

CHESTNUT RIDGE COAL COMPANY

Indiana No. 6.—This mine worked during only the latter part of the year.

VALIER COAL COMPANY

Valier.—Ventilation and drainage very fair. There is not much solid work now in the mine, as the fault seems to be cutting them off.

MADEIRA-HILL COAL MINING COMPANY

Clover Run Nos. 1 and 2.—In good condition as to ventilation and drainage.

HILLSDALE COAL AND COKE COMPANY

Hillsdale Nos. 2 and 3.—No. 2 mine worked the greater part of the year and was in good condition. It is now being pulled back. No. 3 mine was in fair condition.

CLARK BROTHERS COAL MINING COMPANY

Falcon Nos. 5, 7 and 8.—These mines did not come under the law and were not visited.

WHARTON COAL AND COKE COMPANY

Wharton.—Drainage and ventilation were always found up to the standard at the different visits. Most of the coal mined here is made into coke, and they have a very complete coking plant.

GRACETON COKE COMPANY

Graceton Nos. 2 and 3.—There are two mines here, but one was idle the greater portion of the year. The general condition of the mines was good. They have a complete coking plant and washery, and most of the coal is coked.

TEARING RUN COAL COMPANY

Tearing Run.—This is a slope mine on the adjoining property to Graceton. Condition of the mine was good.

IMPROVEMENTS

ROCHESTER AND PITTSBURG COAL AND IRON COMPANY

At the Lucerne operation they have put in a big hoisting plant at the shaft and equipped the shaft with cages that hold two large cars, tandem, at one time; and near the foot of the shaft they have installed a large Scranton pump, as they will ultimately have to handle a large volume of water at this point, it being the drainage point for a large territory of coal. They have also started work on a large steel tipple, located midway between the shaft and the drifts. All the coal will be brought to this central tipple and it is expected to be one of the largest operations in the State.

Between the shaft and the drifts they have installed a large and most complete Clifford fan, capable of producing a large volume of air, and at the foot of the shaft the current is split, so that one portion goes to the shaft and the other to the drifts. The fan will be capable of furnishing ventilation for a good many years.

COWANSHANNOCK COAL AND COKE COMPANY

Yatesboro Nos. 2, 3 and 4.—Have started work on a large slope that will ultimately cut across the face of the workings of No. 4 mine, and a large hoisting plant and fan will be erected there. The railway has has been built up to this point, and this operation will soon be completed.

CASCADE COAL AND COKE COMPANY

Sykesville Shaft.—A shaft, 12 x 12 feet area and 200 feet deep, has been sunk near the face of the mine workings, and equipped with stairs so that men can go out, if necessary.

BOWERSVILLE COAL COMPANY

Hillman.—A new tipple has been built and the haulage system changed to meet the new conditions.

TEARING RUN COAL COMPANY

Tearing Run.—A large compressor has been installed, and this will give power for pumping and allow the pushing down of the main slope toward the basin.

MADEIRA-HILL COAL MINING COMPANY

Clover Run Nos. 1 and 2.—They have put in an electrical power plant for hauling and have also installed a 12-foot diameter Stine fan.

MINE FOREMEN'S EXAMINATIONS

The annual examination of candidates for certificates of qualification as Mine Foremen and Fire Bosses was held in Punxsutawney April 6 and 7.

The Board of Examiners was composed of Roger Hampson, Mine Inspector; John Reed, Superintendent, and James Wood, Mine Foreman.

The following candidates passed a successful examination and were granted certificates:

Mine Foremen—First Grade

Robert Maloney, DeLancey; E. E. Hewitt, DeLancey; John Hammond, Eleanora; Wilfred Johnson, Sagamore; John J. Ganley, Punxsutawney; Evan Morgan, Lucerne; James N. Patterson, Ernest; Richard Joseph, Horatio.

Mine Foremen—Second Grade

George Armstrong, Iselin; William P. Jones, Iselin; John F. Noble, Onondaga; Thomas Madden, Eleanora; John Aikman, Stockdale; Bernard J. Ganley, Punxsutawney; James McLeavey, Punxsutawney; William Lewis, Horatio; E. M. Scott, Sagamore.

Fire Bosses

P. F. Costeello, Anita; William Garland, DeLancey; R. C. Patterson, DeLancey; Andrew Watson, Indiana; J. W. Larson, Punxsutawney; P. Flannagan, Eleanora; H. J. Clark, Eleanora; John Lundstrom, Ernest; John P. Anderson, Yatesboro.

THIRTEENTH DISTRICT

ALLEGHENY, WESTMORELAND AND FAYETTE COUNTIES

Dravosburg, Pa., February 21, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mining Laws, I have the honor to transmit herewith my annual report of the Thirteenth Bituminous District for the year ending December 31, 1909.

Respectfully submitted,

JOHN F. BELL,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	36
Number of mines in operation,	32
Number of tons of coal shipped to market,	6,105,687
Number of tons used at mines for steam and heat,	108,188
Number of tons sold to local trade and used by employes,	19,400
Number of tons used in the manufacture of coke,	83,130
Number of tons of coal produced,	6,316,405
Number of tons of coke produced,	49,153
Number of coke ovens,	233
Number of coke ovens in operation,	233
Number of tons of coal produced by pick mining,	1,640,054
Number of tons produced by compressed air machines,	175,466
Number of tons produced by electrical machines,	4,500,885
Number of persons employed inside of mines,	6,996
Number of persons employed outside, including coke workers,	992
Number of persons employed at manufacture of coke,	83
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	55
Number of non-fatal accidents outside,	3
Number of tons of coal produced per fatal accident inside,	315,820
Number of persons employed per fatal accident inside,	350
Number of persons employed per fatal accident outside,	248
Number of persons employed per non-fatal accident inside,	127
Number of persons employed per non-fatal accident outside,	331
Number of wives made widows,	14
Number of children made orphans,	27
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	5
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	54
Number of electric motors used outside,	———
Number of fans in use,	36
Number of furnaces in use,	4
Number of gaseous mines in operation,	24
Number of non-gaseous mines in operation,	8
Number of new mines opened,	———
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburg Coal Company,	3,365,110
Monongahela River Consolidated Coal and Coke Company,	1,363,948
Penn Gas Coal Company,	528,868
Blaine Coal Company,	480,140
United Coal Company,	348,234
Youghiogheny and Ohio Coal Company,	86,236
Lake Shore Gas Coal Company,	46,586
Clair and Rockwell Coal Company,	38,550
Belle Bridge Mining Company,	30,852
Bowman Brothers Company,	16,325
Smithdale Coal Company,	6,305
Myers Coal Company,	5,251
Total,	6,316,405

Production by Counties

Allegheny,	3,434,084
Westmoreland,	1,960,191
Fayette,	922,130
Total,	6,316,405

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburg Coal Co.,	10	3	13	28	3	31	336,511	120,182	3,777	513	4,290	378	171	135	171
Monongahela River Consolidated Coal and Coke Co.,	4	.....	4	9	.....	9	340,987	151,549	1,842	240	2,082	460	.....	205	.....
Penn Gas Coal Co.,	3	.....	3	6	.....	6	176,289	88,144	352	119	471	117	.....	59	.....
Blaine Coal Co.,	.....	1	1	4	.....	4	.....	120,035	395	46	441	.....	46	99	.....
United Coal Co.,	3	.....	3	5	.....	5	116,078	69,647	379	43	422	126	.....	76	.....
Lake Shore Gas Coal Co.,	.....	.....	.....	1	.....	1	.....	46,586	82	12	94	.....	.....	82	.....
Belle Bridge Mining Co.,	.....	.....	.....	2	.....	2	.....	15,426	46	4	50	.....	.....	23	.....
Miscellaneous Companies,	.....	.....	.....	.....	.....	.....	.....	.....	123	15	138	.....	.....	.....	.....
Totals and averages for district,	20	4	24	55	3	58	315,820	114,843	6,996	992	7,988	350	248	127	331

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	1	3	----	----	1	2	1	----	1	2	----	2	13	65.00
Falls of roof,	----	----	----	1	1	----	----	----	----	----	----	----	2	10.00
Mine cars,	----	----	1	1	1	----	----	----	----	----	----	----	3	15.00
Electricity,	----	----	----	----	----	----	----	2	----	----	----	----	2	10.00
Totals,	1	3	1	2	3	2	1	2	1	2	----	2	20	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	2	----	----	----	----	----	----	----	2	50.00
Miscellaneous,	----	----	----	----	----	----	----	----	1	----	----	1	2	50.00
Totals,	----	----	----	----	2	----	----	----	1	----	----	1	4	100.00
Grand totals inside and outside,	1	3	1	2	5	2	1	2	2	2	----	3	24	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	2	----	----	----	----	2	----	----	1	5	9.09
Falls of slate,	----	1	2	2	2	5	1	3	1	1	3	4	25	45.45
Falls of roof,	1	----	----	----	----	1	----	1	----	1	1	2	7	12.73
Mine cars,	----	1	1	----	1	1	----	1	1	4	----	3	13	23.64
Explosions of gas and dust,	----	----	----	1	1	----	----	----	2	----	----	----	4	7.27
Miscellaneous,	----	----	----	----	----	1	----	----	----	----	----	----	1	1.82
Totals,	1	2	3	5	4	8	1	5	6	6	4	10	55	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	1	----	----	----	----	----	1	33.33
Miscellaneous,	1	----	----	----	----	----	----	----	----	----	----	1	2	66.67
Totals,	1	----	----	----	----	----	1	----	----	----	----	1	3	100.00
Grand totals inside and outside,	2	2	3	5	4	8	2	5	6	6	4	11	58	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	----	----	1	----	----	----	----	1	----	1	3
Machine runners,	----	----	----	----	1	----	----	----	----	----	----	----	1
Machine loaders,	1	3	----	----	1	2	1	2	1	1	----	1	13
Drivers and runners,	----	----	1	----	----	----	----	----	----	----	----	----	1
Laborers,	----	----	----	2	----	----	----	----	----	----	----	----	2
Totals,	1	3	1	2	3	2	1	2	1	2	----	2	20
Outside													
Miners,	----	----	----	----	----	----	----	----	1	----	----	----	1
Car trimmers,	----	----	----	----	2	----	----	----	----	----	----	1	3
Totals,	----	----	----	----	2	----	----	----	1	----	----	1	4
Grand totals inside and outside,	1	3	1	2	5	2	1	2	2	2	----	3	24

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,	----	----	----	----	----	----	----	----	1	----	----	----	1
Fire bosses,	----	----	----	----	----	----	----	----	1	----	----	----	1
Miners,	1	1	1	3	1	2	----	3	1	----	----	4	17
Machine runners,	----	----	----	----	----	----	----	1	----	1	----	----	2
Machine loaders,	----	----	1	2	2	4	1	----	2	3	4	4	23
Machine scrapers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Drivers and runners,	----	1	----	----	1	1	----	1	1	2	----	1	8
Trip riders,	----	----	----	----	----	1	----	----	----	----	----	----	1
Company men,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	1	2	3	5	4	8	1	5	6	6	4	10	55
Outside													
Dump men,	1	----	----	----	----	----	----	----	----	----	----	----	1
Laborers,	----	----	----	----	----	----	1	----	----	----	----	----	1
Pump men,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	1	----	----	----	----	----	1	----	----	----	----	1	3
Grand totals inside and outside,	2	2	3	5	4	8	2	5	6	6	4	11	58

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,		1		1									2
English,				1									1
Irish,										1			1
Polish,		1					1	1	1				4
Hungarian,					2							1	3
Italian,			1		1	1			1				4
Slavonian,					2	1		1		1		1	6
Austrian,	1	1											2
Russian,												1	1
Totals,	1	3	1	2	5	2	1	2	2	2		3	24

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1		1	1	1	2		2	2	2	1	1	14
English,				1	1				1	1		1	5
Scotch,					1								1
Irish,				1									1
German,							1					1	2
Polish,		1				1	1					2	5
Hungarian,			1	1				1	1		1		5
Italian,	1	1						1	1	1		2	7
Slavonian,			1			2				1	1	2	7
Lithuanian,						1			1				2
Austrian,						1					1	1	3
Russian,					1								1
Swedish,								1					1
French,				1		1							2
Finnish,												1	1
Granish,										1			1
Totals,	2	2	3	5	4	8	2	5	6	6	4	11	58

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pittsburg Coal Co.																
Banning No. 1,	Slope,	Gaseous,		20	6	6	110	3.5	Vulcan,	Steam,		5	103,860	84,100	147,200	‡224
Banning No. 2,	Slope,	Gaseous,		16	8	3.75	178	4.5	Capell,	Steam,		10	219,000	139,960	248,000	358
Darr,*	Slope,	Gaseous,		25	8	6			Vulcan,	Steam,						
Euclid,	Shaft,	Gaseous,		13.5	7.5	3	132	2.1	Capell,	Steam,		8	143,810	101,800	162,600	185
Eureka,	Drift,	Non-gas.,		6	2	3	364		Clark,	Electricity,		6	123,480	102,060	158,100	207
	Drift,	Non-gas.,		8	1.5	3.75	320	0.8	Stine,	Electricity,						
	Drift,	Non-gas.,		16	5.6	4	65		Brazil,	Steam,						
	Slope,	Non-gas.,		5	.75	2.5	321		Clark,	Electricity,						
Forest Hill,	Drift,	Gaseous,		12	5.5	2.75	184	2.9	Capell,	Steam,		3	93,660	66,800	101,480	196
Guffey,	Drift,	Gaseous,		8	4	2	246	1.75	Capell,	Electricity,		1	43,000	25,500	47,500	29
Ocean No. 1,	Drift,	Gaseous,		8	1.5	3.75	350	0.8	Stine,	Electricity,		4	85,560	62,800	§	227
Ocean No. 2,	Drift,	Gaseous,	Fan,	13.5	6.5	3.25	168	3.3	Capell,	Electricity,		6	127,615	94,100	144,800	318
				12	5	2.9	170	2.35	Capell,	Electricity,						
Ocean Nos. 3 and 4,	Drifts,	Gaseous,		6	1.4	2.2	415	0.8	Clark,	Electricity,		4	51,280	33,380	54,300	108
									Buffalo,							
				1.5			1,220		Force,							
Ocean No. 5,	Drift,	Gaseous,		8	1.3	3.5	370	1.4	Stine,	Electricity,		5	98,680	84,200	147,600	213
				7	1	3	342	0.55	Stine,	Electricity,						
Painter,	Drift,	Gaseous,		8	1	3.2	298	0.6	Clark,	Electricity,		3	†	35,800	60,000	130

*Idle.
†Measurements taken at the ventilator.
‡On day shift on last inspection.
§No air measurements taken.

Sarah,	Drift,	Gaseous,		8	1.25	3.5	284	0.6	Stine,	Electricity,		2	60,000	29,600	‡	148
Shaner,	Slope,	Gaseous,		10	4.25	3.3	216	2.25	Capell,	Steam,		2	53,000	35,780	58,500	158
Waverly,	Shaft,	Gaseous,	Fan,	20	7	5	84	2.1	Brazil,	Steam,		4	69,000	51,230	72,000	138
Wick Haven,	Shaft,	Gaseous,		12	5	2.5	200	1.75	Capell,	Steam,		4	88,310	61,410	87,600	187
West Newton,	Shaft,	Gaseous,		20	7	5	96	2.5	Brazil,	Steam,		5	†	51,730	91,280	268
Yough Slope,*	Slope,	Gaseous,		16	5.5	3.5			Pollock,	Steam,						
Monongahela River Consolidated Coal and Coke Co.																
Bunola,	Drift,	Gaseous,	Fan,	16	6	4	82	1.0	Monongahela Mfg. Co.	Steam,		3	†	30,320	75,000	209
Camden,	Drift,	Non-gas.,	Furnace,								98.5	5	†	35,700	73,440	241
Lovedale,	Slope,	Gaseous,	Fan,	16	6.5	4	104	1.9	Capell,	Steam,		6	102,400	61,100	160,620	259
Risher,	Drift,	Non-gas.,	Fans,	20	6.5	6.2	66		Pollock,	Steam,		5	58,300	23,700	‡	273
				6	1.5	2.7	450		Clark,	Electricity,						
Rock Run,	Drift,	Non-gas.,	Furnace,								42.5	1	†	7,800	12,800	58
Walton No. 2,	Drift,	Gaseous,	Fan,	20	6.7	6.6	73	2.1	Pollock,	Steam,		3	†	33,120	82,500	216
Yough No. 2,	Slope,	Gaseous,	Fan,	20	7.5	5	90	1.9	Pollock,	Steam,		6	†	64,090	103,700	281
Penn Gas Coal Co.																
Penn Gas No. 3,	Slope,	Gaseous,	Fan,	20	8	4.75	98	2.7	Clifford Capell.	Steam,		11	190,200	126,470	192,000	322
Blaine Coal Co.																
Blaine,	Drift,	Gaseous,	Fans,	10	4.5	2.5	219	1.5	Robinson,	Steam,		10	135,570	84,380	150,910	349
				7	3.5	2	160	0.5	Buffalo,	Electricity,						
United Coal Co.																
Patterson No. 2,	Drift,	Gaseous,	Fan,	16	6.5	5	134	3.2	Robinson,	Steam,		5	87,400	74,300	112,000	287
Youghiogheny and Ohio Coal Co.																
Howe,	Drift,	Non-gas.,	Fan,	6	1.4	2.25	490	0.3	Clark,	Electricity,		2	47,600	25,280	‡	35
Lake Shore Gas Coal Co.																
Ayers Hollow,	Slope,	Gaseous,	Fan,	12	4	3.5	76	1.2	Brazil,	Steam,		2	†	18,940	54,180	76
Dravo,*	Drift,	Non-gas.,	Furnace,								48					
Clair and Rockwell Coal Co.																
Dilworth,	Drift,	Non-gas.,	Furnace,								24	1	†	2,880	2,880	18
Belle Bridge Mining Co.																
Belle Bridge,	Drift,	Non-gas.,	Basket,									2	†	8,220	8,220	29

*Idle.
†Measurements taken at the ventilator.
‡No measurements taken.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Bowman Brothers Co. Bowman,	Drift,	Non-gas.,	Furnace,								12	1	‡	1,600	4,800	15
Smithdale Coal Co. Guller,†	Drift,	Non-gas.,	Furnace,								35					
Myers Coal Co. Osceola,†	Drift,	Gaseous,														9

†No measurements taken.
‡Measurements taken at the ventilator

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Pittsburg Coal Co.,	Banning No. 1,	Slope,	Gaseous,	9	Electricity,	Pittsburg.	85	96	74	79,255
	Banning No. 2,	Slope,	Gaseous,	16			88	96	80	404,732
	Darr,	Slope,	Gaseous,	1			83	94	72	1,632
	Euclid,	Shaft,	Gaseous,	7			82	90	74	145,953
	Eureka,	Drift and Slope.	Non-gas.,	5			64	70	58	151,760
	Forest Hill,	Drift,	Gaseous,	8			63	66	60	197,980
	Guffey,	Drift,	Gaseous,	2			85	84	86	45,789
	Ocean No. 1,	Drift,	Gaseous,	7			75	84	66	256,452
	Ocean No. 2,	Drift,	Gaseous,	9			69	78	60	276,961
	Ocean Nos. 3 and 4,	Drifts,	Gaseous,	5			66	72	60	48,808
	Ocean No. 5,	Drift,	Gaseous,	6			60	60	60	209,028
	Painter,	Drift,	Gaseous,	5			62	64	60	66,428
	Sarah,	Drift,	Gaseous,	4			72	84	60	53,402
	Shaner,	Slope,	Gaseous,	4			66	72	60	102,355
	Waverly,	Shaft,	Gaseous,	5			78	84	72	97,365
	Wick Haven,	Shaft,	Gaseous,	6			93	107	78	238,289
	West Newton,	Shaft,	Gaseous,	8			70	77	62	252,901
	Yough Slope,	Slope,	Gaseous,	6			70	77	62	2,721
Totals,				113						2,631,811

TABLE J—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Monongahela River Consolidated Coal and Coke Co.	Bunola,	Drift,	Gaseous,	9	Electricity,	Pittsburg,	66	72	60	172,278
	Camden,	Drift,	Non-gas.,	7			66	72	60	140,785
	Lovedale,	Slope,	Gaseous,	8			66	72	60	142,233
	Risher,	Drift,	Non-gas.,	9			56	62	50	250,049
	Walton No. 2,	Drift,	Gaseous,	8			66	72	60	91,801
	Yough No. 2,	Slope,	Gaseous,	9			62	65	60	212,401
Totals,				50						1,009,547
Penn Gas Coal Co.,	Penn Gas No. 3,	Slope,	Gaseous,	15	Electricity and Compressed Air.	Pittsburg,	73	84	62	421,119
Blaine Coal Co.,	Blaine,	Drift,	Gaseous,	14	Electricity,	Pittsburg,	66	72	61	361,890
United Coal Co.,	Patterson No. 2,	Drift,	Gaseous,	13	Electricity,	Pittsburg,	67	72	62	173,953
Youghiogheny and Ohio Coal Co.,	Howe,	Drift,	Non-gas.,	2	Electricity,	Pittsburg.	67	72	62	55,665

Lake Shore Gas Coal Co.,	Ayers Hollow,	Slope,	Gaseous,	2	Electricity,	Pittsburg,	73	84	62	15,528
Bowman Brothers Co.,	Bowman,	Drift,	Non-gas.,	1	Electricity,	Pittsburg,	66	72	60	6,838
Grand totals,				210						4,676,351

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburg Coal Co.						
Banning No. 1,	Fayette,			W. M. Kelvington,	Van Meter,	Y. D. of P. and L. E.
Banning No. 2,	Fayette,			W. M. Kelvington,	Whitsett,	Y. D. of P. and L. E.
Darr,*	Westmoreland,			W. M. Kelvington,	Van Meter,	Y. D. of P. and L. E.
Euclid,	Westmoreland,			P. J. Garvey,	Fitz Henry,	B. and O.
Eureka,	Westmoreland,			Samuel McKay,	Smithton,	B. and O.
Forest Hill,	Allegheny,			Emil Gerry,	Smithdale,	Y. D. of P. and L. E.
Guffey,	Westmoreland,			Alex. McClymont,	Yohoghany,	B. and O.
Ocean No. 1,	Westmoreland,			Thomas Whiteman,	Scott Haven,	B. and O.
Ocean No. 2,	Allegheny,	G. W. Schluederberg,	Pittsburg,	Thomas Whiteman,	Scott Haven,	Y. D. of P. and L. E.
Ocean Nos. 3 and 4,	Allegheny,			Thomas Whiteman,	Scott Haven,	Y. D. of P. and L. E.
Ocean No. 5,	Allegheny,			Emil Gerry,	Smithdale,	Y. D. of P. and L. E.
Painter,	Allegheny,			Thomas Whiteman,	Scott Haven,	Y. D. of P. and L. E.
Sarah,	Allegheny,			Emil Gerry,	Smithdale,	Y. D. of P. and L. E.
Shaner,	Westmoreland,			Alex. McClymont,	Yohoghany,	B. and O.
Waverly,	Westmoreland,			Samuel McKay,	Smithton,	B. and O.
Wick Haven,	Fayette,			W. M. Kelvington,	Whitsett,	Y. D. of P. and L. E.
West Newton,	Westmoreland,			John Hauser,	West Newton,	Y. D. of P. and L. E.
Yough Slope,*	Westmoreland,			John Hauser,	West Newton,	B. and O.
Monongahela River Consolidated Coal and Coke Co.						
Bunola,				G. W. Peterson,	Bunola,	M. D. of P. and L. E.
Camden,				John Black,	Dravosburg,	M. D. of Pennsylvania
Lovedale,				H. C. Hutton,	Elizabeth,	M. D. of P. and L. E.
Risher,	Allegheny,	S. A. Scott,	Pittsburg,	John Black,	Dravosburg,	Union
Rock Run,†				John Black,	Dravosburg,	M. D. of Pennsylvania
Walton No. 2,				John Young,	West Elizabeth,	M. D. of Pennsylvania
Yough No. 2,				H. C. Hutton,	Boston,	Y. D. of P. and L. E.
Penn Gas Coal Co.						
Penn Gas No. 3,	Westmoreland,	A. C. Cameron,	Irwin,	Thomas Evans,	Irwin,	Pennsylvania, D. W. P. Div.
Blaine Coal Co.						
Blaine,	Allegheny,	H. K. Knopf,	Pittsburg,	J. E. Hackett,	Elizabeth,	M. D. of P. and L. E.

*Idle.
†Operated by McVickers Brothers Company until September.

United Coal Co.						
Patterson No. 2,	Allegheny,	J. D. O'Neill,	Pittsburg,	James Henderson,	Elizabeth,	M. D. of P. and L. E.
Youghiogheny and Ohio Coal Co.						
Howe,	Allegheny,	A. W. Osborne,	Cleveland, O.,	T. F. Kearney,	Lock No. 3,	M. D. of P. and L. E.
Lake Shore Gas Coal Co.						
Ayers Hollow,	Westmoreland,	C. H. Wisser,	Sutersville,	A. J. Wisser,	Sutersville,	B. and O.
Dravo,*	Allegheny,					Y. D. of P. and L. E.
Clair and Rockwell Coal Co.						
Dilworth,	Westmoreland,	Clair Stillwagon,	Connellsville,	W. P. Stillwagon,	Scott Haven,	B. and O.
Belle Bridge Mining Co.						
Belle Bridge,	Allegheny,			A. E. Cowan,	Elizabeth,	M. D. of P. and L. E.
Bowman Brothers Co.						
Bowman,	Allegheny,	S. M. Bowman,	McKeesport,	Adam Gephart,	McKeesport,	
Smithdale Coal Co.						
Guiler,†	Allegheny,			Samuel Kinsey,	Pittsburg,	Y. D. of P. and L. E.
Myers Coal Co.						
Osceola,	Allegheny,			F. E. Myers,	McKeesport,	B. and O.

*Idle.
†Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Coal Co.																
Banning No. 1,	Fayette,	88,893	3,256	360	.....	92,509	.....	.....	94	288	....	3	.....	1,000	10,200	25
Banning No. 2,	Fayette,	507,083	8,092	1,197	.....	516,372	.....	.....	243	453	1	4	5,000	.....	28,000	29
Darr,	Westmoreland,	2	1,888	53	.....	1,943	.....	.....	.....	10	....	....	.....	.....	500	4
Euclid,	Westmoreland,	142,261	5,110	741	16,305	164,417	10,686	72	157	292	....	....	15,575	.....	8,450	22
Eureka,	Westmoreland,	233,160	2,802	388	.....	236,350	.....	.....	216	275	1	....	20,725	180	.....	17
Forest Hill,	Allegheny,	249,780	1,361	485	.....	251,626	.....	.....	226	278	3	3	24,581	50	10	17
Guffey,	Westmoreland,	72,436	3	.....	.....	72,439	.....	.....	143	78	....	1	3,025	39	.....	6
Ocean No. 1,	Westmoreland,	283,488	18,937	1,752	.....	304,177	.....	.....	215	327	1	3	52,000	1,200	.....	29
Ocean No. 2,	Allegheny,	346,584	7	.....	.....	346,591	.....	.....	249	404	2	11	59,400	200	.....	35
Ocean Nos. 3 and 4,	Allegheny,	71,216	8	426	.....	71,650	.....	.....	112	144	....	....	4,830	50	.....	10
Ocean No. 5,	Allegheny,	280,202	.....	72	.....	280,274	.....	.....	223	260	2	2	26,901	300	10	20
Painter,	Allegheny,	75,983	4	9	.....	75,996	.....	.....	125	135	....	....	4,370	50	.....	12
Sarah,	Allegheny,	70,593	.....	63	.....	70,656	.....	.....	115	164	....	....	6,695	10	5	12
Shaner,	Westmoreland,	133,178	4,700	514	.....	138,392	.....	.....	128	276	....	1	17,150	180	70	13
Waverly,	Westmoreland,	104,843	3,179	999	11,869	120,890	8,284	61	155	281	....	2	7,955	.....	4,260	23
Wick Haven,	Fayette,	309,187	2,810	1,252	.....	313,249	.....	.....	236	279	1	....	10,000	.....	13,400	26
West Newton,	Westmoreland,	295,791	6,201	2,049	.....	304,041	.....	.....	221	338	2	1	1,500	500	400	21
Yough Slope,	Westmoreland,	51	2,425	1,062	.....	3,538	.....	.....	.....	8	....	....	225	.....	20	4
Totals,		3,264,731	60,783	11,422	28,174	3,365,110	18,970	133	.....	4,290	13	31	259,932	3,759	65,325	325

Monongahela River Consolidated Coal and Coke Co.																	
Bunola,	Allegheny,	212,350	1,178	87	.....	213,615	.....	.....	223	372	1	....	22,500	3,000	.....	25
Camden,		188,812	1,252	1,142	.....	191,206	.....	.....	177	305	1	....	29,950	.....	.....	22
Lovedale,		176,694	4,978	173	.....	181,845	.....	.....	207	305	1	1	38,250	200	.....	20
Risher,		301,931	4,082	1,608	.....	307,621	.....	.....	254	393	....	4	37,775	.....	500	24
Rock Run,		51,554	.....	96	.....	51,650	.....	.....	232	65	....	....	9,375	.....	.....	8
Walton No. 2,		116,187	2,520	482	.....	119,189	.....	.....	149	289	1	2	26,450	75	.....	22
Yough No. 2,		295,008	3,180	634	.....	298,822	.....	.....	243	353	....	2	55,000	100	.....	20
Totals,		1,342,536	17,190	4,222	.....	1,363,948	.....	.....	.....	2,082	4	9	219,300	3,375	500	141
Penn Gas Coal Co.																
Pen Gas No. 3,	Westmoreland,	452,727	19,690	1,495	54,956	528,868	30,183	100	262	471	3	6	.....	.....	38,000	37
Blaine Coal Co.																
Blaine,	Allegheny,	473,482	4,832	1,826	.....	480,140	.....	.....	242	441	1	4	60,017	.....	.....	38
United Coal Co.																
Patterson No. 2,	Allegheny,	343,781	4,019	434	.....	348,234	.....	.....	224	422	3	5	.....	.....	34,000	27
Youghiogheny and Ohio Coal Co.																
Howe,	Allegheny,	85,361	874	1	.....	86,236	.....	.....	233	61	....	....	15,000	.....	.....	5
Lake Shore Gas Coal Co.																
Ayers Hollow,	Westmoreland,	45,836	750	.....	.....	46,586	.....	.....	134	94	....	1	5,000	.....	.....	7
Dravo,	Allegheny,															
Clair and Rockwell Coal Co.																
Dilworth,	Westmoreland,	38,500	50	.....	.....	38,550	.....	.....	336	34	....	....	29	950	.....	2
Belle Bridge Mining Co.																
Belle Bridge,	Allegheny,	30,852	.....	.....	.....	30,852	.....	.....	224	50	....	2	.....	.....	.....	3
Bowman Brothers Co.																
Bowman,	Allegheny,	16,325	.....	.....	.....	16,325	.....	.....	303	15	....	....	750	.....	.....	2
Smithdale Coal Co.																
Guiler,	Allegheny,	6,305	.....	.....	.....	6,305	.....	.....	65	18	....	....	.....	.....	.....	2
Myers Coal Co.																
Osceola,	Allegheny,	5,251	.....	.....	.....	5,251	.....	.....	175	10	....	....	.....	.....	.....	1
Grand totals,		6,105,687	108,188	19,400	83,130	6,316,405	49,153	233	.....	7,988	24	58	560,028	8,084	137,825	590

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pittsburg Coal Co.,	Allegheny, Westmoreland, Fayette,	2	200	42	6,090	6,290	------	------	27	45	6,354	45	9,053	6,087	11	1
Monongahela River Consolidated Coal and Coke Co.	Allegheny,	7	600	23	2,250	2,850	3	------	12	17	2,562	17	3,570	3,440	7	------
Penn Gas Coal Co.,	Westmoreland,	------	------	8	1,200	1,200	1	------	3	9	1,545	2	629	------	2	3
Blaine Coal Co.,	Allegheny,	------	------	5	750	750	------	------	4	6	930	3	490	210	3	------
United Coal Co.,	Allegheny,	------	------	4	600	600	1	------	7	3	600	2	4,200	500	2	------
Youghiogheny and Ohio Coal Co.	Allegheny,	------	------	1	150	150	------	------	1	1	125	------	------	------	1	------
Lake Shore Gas Coal Co.,	Westmoreland, Allegheny,	------	------	2	250	250	------	------	------	3	225	2	700	700	1	------
Clair and Rockwell Coal Co.,	Westmoreland,	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------
Totals,		9	800	85	11,290	12,090	5	------	54	84	12,341	72	18,642	10,937	27	4

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Pittsburg Coal Co.,	Allegheny, Westmoreland, Fayette,	16	3	56	1,018	109	1,747	109	248	58	226	187	3,777	7	12	63	55	46	18	312	513	4,290
Monongahela River Consolidated Coal and Coke Co.	Allegheny,	7	1	14	432	56	975	56	132	22	147	------	1,842	4	6	29	32	----	9	160	240	2,082
Penn Gas Coal Co.,	Westmoreland.	1	1	5	50	17	186	17	32	1	42	------	352	----	1	7	15	35	2	59	119	471
Blaine Coal Co.,	Allegheny,	2	1	4	80	20	208	14	34	6	2	24	395	1	2	5	5	----	1	32	46	441
United Coal Co.,	Allegheny,	1	1	4	91	16	197	16	22	1	----	30	379	1	1	1	4	----	1	35	43	422
Youghiogheny and Ohio Coal Co.	Allegheny,	1	----	----	15	2	24	2	5	----	4	------	53	----	----	2	2	----	1	3	8	61
Lake Shore Gas Coal Co.,	Westmoreland, Allegheny,	1	----	1	44	2	21	2	8	1	2	------	82	1	1	1	2	----	1	6	12	94
Clair and Rockwell Coal Co.,	Westmoreland.	1	1	----	23	------	------	------	2	----	5	------	32	1	----	1	----	----	------	------	2	34
Belle Bridge Mining Co.,	Allegheny,	1	----	----	40	------	------	------	3	----	----	2	46	----	----	1	----	----	------	3	4	50
Bowman Brothers Co.,		1	----	----	5	------	4	------	3	----	----	------	13	1	----	----	----	----	1	------	2	15
Smithdale Coal Co.,		1	----	----	13	------	------	------	2	----	----	------	16	----	----	----	----	2	------	------	2	18
Myers Coal Co.,		----	----	----	8	------	------	------	1	----	----	------	9	1	----	----	----	----	------	------	1	10
Totals,		33	8	84	1,819	222	3,362	216	492	89	428	243	6,996	17	23	110	115	83	34	610	992	7,988

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburg Coal Co.,	Westmoreland, Fayette, Allegheny,	8	7	9	10	13	17	19	19	18	19	20	19	178
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,	8	9	23	19	16	18	18	17	19	20	24	21	212
Penn Gas Coal Co.,	Westmoreland,	18	18	19	20	21	20	25	24	23	23	25	26	262
Blaine Coal Co.,	Allegheny,	22	20	14	18	23	22	21	24	20	21	19	18	242
United Coal Co.,	Allegheny,	9	11	13	11	15	26	26	26	23	21	22	21	224
Youghiogheny and Ohio Coal Co.,	Allegheny,	16	7	12	9	18	26	26	26	24	20	24	25	233
Lake Shore Gas Coal Co.,	Westmoreland, Allegheny,	2	2	4	3	2	4	16	24	20	18	22	17	134
Clair and Rockwell Coal Co.,	Westmoreland,	29	27	29	30	28	27	30	26	27	28	28	27	336
Belle Bridge Mining Co.,	Allegheny,	------	------	4	25	25	24	26	26	25	25	25	19	224
Bowman Brothers Co.,	Allegheny,	24	24	24	26	26	26	23	26	26	26	26	26	303
Smithdale Coal Co.,	Allegheny,	18	19	21	7	------	------	------	------	------	------	------	------	65
Myers Coal Co.,	Allegheny,	------	------	------	------	15	22	21	25	21	23	23	25	175

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 6	Anton Kos,	Austrian,	Loader,	43	M.	1	4	Ocean No. 5,	Allegheny,	Fatally injured by fall of slate at face of room while loadng a car. Died January 13.
Feb. 1	Frank Ryddle,	American,	Loader,	16	S.	----	----	Penn Gas No. 3.	Westmoreland,	Killed instantly by fall of slate at face of room while knocking coal.
4	Mike Savage,	Austrian,	Loader,	48	M.	1	----	Ocean No. 1,	Westmoreland,	Fatally injured by fall of slate at face of room.
24	Joseph Jibalgia,	Polish,	Loader,	45	M.	1	1	Patterson No. 2,	Allegheny,	Killed instantly by fall of slate at face of room.
March 12	Joseph Blanshetti,	Italian,	Driver,	21	S.	----	----	Banning No. 2,	Fayette,	Killed instantly by being crushed between car and entry pillar.
April 13	Alfred Withers,	English,	Laborer,	48	M.	1	2	Walton No. 2,	Allegheny,	Killed instantly by car on entry. He was dropping the car down a grade, and slipped and fell in front of car.
17	Dominick Serroco,	American,	Laborer,	36	M.	1	----	Eureka,	Westmoreland,	Fatally injured by fall of roof while working at an overcast.
May 5	Frank Horneck,	Hungarian,	Loader,	47	M.	1	----	Patterson No. 2,	Allegheny,	Fatally injured by fall of slate at face of room while knocking coal.
6	John Muha,	Slavonian,	Car trimmer,	23	S.	----	----	Ocean No. 5,	Allegheny,	Killed by loaded car. He was dropping a car below the tipple, and in trying to couple to another car his foot caught in a frog and he was thrown in front of car. Outside.
17	Steve Smoking,	Hungarian,	Car trimmer,	43	M.	1	2	Wick Haven,	Fayette,	Killed instantly by railroad car. Outside.
26	Andrew Kozar,	Slavonian,	Machine runner,	28	M.	1	----	West Newton,	Westmoreland,	Fatally injured by a trip of loaded cars on main haulage, while going into the mine.
28	Alfred Cusola,	Italian,	Miner,	58	S.	----	----	Camden,	Allegheny,	Killed by fall of roof on pillar work while drawing posts to make a fall.
June 22	Frank Ottawius,	Italian,	Loader,	51	M.	1	5	Ocean No. 2,	Allegheny,	Killed instantly by fall of slate at face of room while at work under the slate.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
June 24	Andy Tursky,	Slavonian,	Loader,	22	S.	....	....	Forest Hill,	Allegheny,	Killed instantly by fall of slate at face of room.
July 26	Ladis Lasnpeck,	Polish,	Loader,	20	S.	....	....	Penn Gas No. 3,	Westmoreland,	Fatally injured by fall of slate at face of room.
Aug. 7	Ignatz Zawadniak,	Polish,	Loader,	38	M.	1	1	Lovedale,	Allegheny,	Killed instantly by coming in contact with an electric wire (300 volts) on the dilly parting. He was getting out of a car when his head came in contact with the trolley wire.
10	John Yoblonsky,	Slavonian,	Loader,	43	M.	1	7	Forest Hill,	Allegheny,	Killed instantly by coming in contact with an electric wire (500 volts). He was on his way into the mine, and in trying to get into a car his head came in contact with the trolley wire.
Sept. 10	Peter Grabosky,	Polish,	Loader,	19	S.	....	....	Penn Gas No. 3,	Westmoreland,	Killed instantly by fall of slate at face of room. He had fired a shot and went back with a bar to pry the coal down. The coal in falling knocked two posts out, when the slate fell and caught him.
24	Belfult Baldine,	Italian,	Miner,	33	M.	1	2	Ocean No. 2,	Allegheny,	Fatally injured by a pick entering his head. He was running to catch the trip, which had started into the mine, when he fell on a pick that he was carrying. Outside.
Oct. 14	Martin Murphy,	Irish,	Miner,	27	S.	....	....	Bunola,	Allegheny,	Fatally injured by fall of slate on pillar work. He was undermining when a piece of slate fell and crushed his arm. Gangrene set in and he died October 21.
29	John Lasco,	Slavonian,	Loader,	24	S.	....	....	Patterson No. 2,	Allegheny,	Killed instantly by fall of slate at face of room.

Dec.	9	John Lukoch,	Hungarian,	Loader,	38	M.	1	3	Forest Hill,	Allegheny,	Fatally injured by fall of slate at face of room.
	20	John Gregof,	Russian,	Miner,	53	M.	1		West Newton,	Westmoreland,	Fatally injured by fall of slate on pillar work.
	30	Melle Tinko,	Slavonian,	Car trimmer,	27	S.			Blaine,	Allegheny,	Fatally injured by being struck with a wire rope. Tinko and three other persons were pulling two loaded cars from the tipple with an engine and a wire rope passing through two movable blocks. When they reached a point where Tinko had to uncouple the rope, they failed to get the engine stopped. The block was simply hooked to a guard rail, and as the cars went on became unhooked, and the tension on the rope caused it to fly up and strike Tinko. Outside

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	4	Austen Reese,	American,	Dumper,	22	M.	Ocean No. 2,	Allegheny,	Toe crushed by dump on the tipple. Outside.
	18	Henry Andrea,	Italian,	Miner,	35	M.	Ocean No. 2,	Allegheny,	Leg bruised by fall of roof at face of pillar.
Feb.	2	Peter Pats,	Polish,	Driver,	24	S.	Penn Gas No. 3,	Westmoreland,	Leg broken by car on entry.
	26	Frank Cadoppi,	Italian,	Miner,	28	S.	Guffey,	Westmoreland,	Leg broken by fall of slate on pillar work.
March	9	Edward Higby,	American,	Motorman,	19	S.	Ocean No. 1,	Westmoreland,	Arms broken by car on entry.
	11	Joseph Noervath,	Slavonian,	Miner,	26	S.	Penn Gas No. 3,	Westmoreland,	Foot crushed by fall of slate on pillar work.
	17	Joseph Shazer,	Hungarian,	Loader,	21	S.	Banning No. 2,	Fayette,	Skull fractured and back injured by fall of slate at face of room.
April	2	James Black,	Irish,	Miner,	57	M.	Yough No. 2,	Allegheny,	Leg broken by fall of coal at face of room.
		James Kardia,	Hungarian,	Loader,	24	S.	Lovedale,	Allegheny,	Leg broken by fall of slate at face of room.
	5	Charles Cumpson,	English,	Miner,	31	M.	West Newton,	Westmoreland,	Leg broken by fall of coal on pillar work.
	9	William Actor,	American,	Miner,	43	M.	Belle Bridge,	Allegheny,	Legs broken by fall of slate on pillar work while knocking coal.
	20	Gabril Condese,	French,	Loader,	26	M.	Ocean No. 2,	Allegheny,	Face and hands burned by gas in entry.
May	3	Jabez Watson,	English,	Miner,	32	M.	Ocean No. 2,	Allegheny,	Leg and back bruised by fall of slate at face of room.
	11	John Strangand,	American,	Loader,	19	S.	Blaine,	Allegheny,	Four fingers cut off by fall of slate at face of room.
	15	Peter Lawson,	Scotch,	Driver,	26	S.	Penn Gas No. 3,	Westmoreland,	Body bruised between car and entry pillar.
	24	Joseph Sheraski,	Russian,	Loader,	30	S.	Patterson No. 2,	Allegheny,	Leg and arms injured by caps exploding in his pocket while going into the mine.
June	5	George Dawson,	American,	Loader,	18	S.	Patterson No. 2,	Allegheny,	Foot crushed by fall of slate at face of room.
		Tony Patrick,	Lithuanian,	Loader,	55	M.	Patterson No. 2,	Allegheny,	Leg broken in two places by fall of slate at face of entry, while knocking out a post to let the slate fall.
	8	Alex Yeanilinas,	Polish,	Miner,	22	S.	Blaine,	Allegheny,	Leg broken and face cut by fall of roof on pillar work.

June	8	John Koralosky,	Austrian,	Miner,	23	S.	Penn Gas No. 3,	Westmoreland,	Foot crushed by fall of slate at face of room.
	14	Amel Crane,	French,	Trip rider,	20	M.	Waverly,	Westmoreland,	Leg crushed between loaded cars on main haulage.
	15	Charles Sewak,	Slavonian,	Loader,	36	M.	Risher,	Allegheny,	Head bruised by fall of slate at face of room.
		Mike Kerrill,	Slavonian,	Driver,	25	M.	Forest Hill,	Allegheny,	Finger broken on entry. While setting a brake a piece of coal fell off the car and caught his hand.
	25	Joseph Varzalya,	American,	Loader,	17	S.	Shaner,	Westmoreland,	Leg broken by fall of slate at face of room.
July	9	Joseph Wilchach,	Polish,	Loader,	35	M.	Ocean No. 2,	Allegheny,	Two ribs broken and back bruised by fall of slate at face of room.
	13	John Gallow,	German,	Laborer,	61	M.	Ocean No. 2,	Allegheny,	Leg fractured by cars. Outside.
Aug.	7	William McCorkle,	American,	Driver,	20	S.	Patterson No. 2,	Allegheny,	Head and body squeezed. Caught between roof and top of car on entry.
	17	Colman Cudaliash,	Hungarian,	Miner,	19	S.	Banning No. 2,	Fayette,	Leg broken by fall of slate at face of room.
	23	Frank Raseet,	Italian,	Miner,	26	S.	Ocean No. 2,	Allegheny,	Foot and ankle bruised. He was taking down slate when a piece fell and caught his foot.
	24	Oscar Dalbrog,	Swedish,	Miner,	32	M.	Ocean No. 5,	Allegheny,	Leg broken by fall of slate on pillar work while undermining.
	26	Adam Blume,	American,	Machine runner,	20	S.	Waverly,	Westmoreland,	Leg fractured by fall of roof at face of room.
Sept.	4	Joseph Pascovish,	Lithuanian,	Loader,	20	S.	Banning No. 1,	Fayette,	Leg fractured and head injured by fall of slate at face of room.
	8	John Sabo,	Hungarian,	Loader,	30	S.	Banning No. 2,	Fayette,	Legs broken by fall of coal at face of room.
	13	Justy Noble,	Italian,	Driver,	20	S.	Ocean No. 2,	Allegheny,	Leg broken by car. He was getting off his trip when he slipped and fell under the car.
	17	George Crump,	English,	Assistant mine foreman,	54	M.	Ocean No. 1,	Westmoreland,	Face and hands burned by gas.
		Charles Nedley,	American,	Fire boss,	38	M.	Ocean No. 1,	Westmoreland,	Face and hands burned by gas.
	22	Andrew Reinhard,	American,	Miner,	40	S.	Ayers Hollow,	Westmoreland,	Toe crushed by fall of coal on pillar work.
Oct.	2	Frank Macloski,	Granish,	Loader,	32	M.	Walton No. 2,	Allegheny,	Knee cap broken by fall of slate at face of room.
	11	Amil Falin,	American,	Machine runner,	30	M.	Walton No. 2,	Allegheny,	Leg broken by fall of roof at face of room.
	14	Ralph Fillmore,	American,	Driver,	20	S.	Penn Gas No. 3,	Westmoreland,	Leg broken by cars on entry.
	18	William Ravizier,	Italian,	Loader,	17	S.	Yough No. 2,	Allegheny,	Leg amputated by motor on main haulage road.
	19	John Oscho,	Slavonian,	Loader,	18	S.	Penn Gas No. 3,	Westmoreland,	Leg broken and body bruised by cars on motor road.
	27	John Watson,	English,	Driver,	29	M.	Risher,	Allegheny,	Leg crushed, necessitating amputation. He was standing in front of his trip on the main entry, waiting for another driver to pass, when the driver ran into him.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Nov. 12	Andy Machneck,	Austrian,	Loader,	27	S.	Banning No. 2,	Fayette,	Leg fractured and collar bone broken by fall of slate at face of entry.
15	William Williams,	American,	Loader,	50	M.	Risher,	Allegheny,	Two ribs broken and ankle bruised by fall of roof at face of entry.
18	George Lenovich,	Slavonian,	Loader,	25	M.	Blaine,	Allegheny,	Toe cut off by fall of slate at face of room.
27	Mike Hornock,	Hungarian,	Loader,	54	M.	Ocean No. 2,	Allegheny,	Leg fractured and finger broken by fall of slate at face of room while shearing.
Dec. 1	Robert Olidage,	Austrian,	Miner,	26	S.	Belle Bridge,	Allegheny,	Hips squeezed and injured internally by fall of roof at face of room.
	Earnest Stragand,	American,	Loader,	20	S.	Blaine,	Allegheny,	Foot cut off by motor on main haulage.
2	William Winka,	German,	Machine scraper,	28	S.	Risher,	Allegheny,	Leg crushed by fall of roof at face of room, and had to be amputated.
8	Albert Gerinsky,	Polish,	Miner,	51	S.	Forest Hill,	Allegheny,	Leg broken. Caught between two cars on main haulage.
12	Joseph Randall,	English,	Pumper,	57	M.	Forest Hill,	Allegheny,	Arm broken. He was going from one pump to another when he slipped and fell on some ice. Outside.
15	Frank Cosoli,	Italian,	Driver,	22	S.	Ocean No. 2,	Allegheny,	Thigh broken by car in a room.
20	Paul Brendyer,	Slavonian,	Loader,	28	S.	Banning No. 1,	Fayette,	Pelvis fractured and body bruised by fall of slate at face of room.
22	Mike Stossock,	Slavonian,	Miner,	43	M.	Banning No. 1,	Fayette,	Thigh fractured and shoulder bruised by fall of coal at face of entry while undermining under loose coal.
	John Mulley,	Finnish,	Loader,	30	S.	Patterson No. 2,	Allegheny,	Foot crushed by fall of slate at face of room.
23	Albert Kumisky,	Polish,	Loader,	34	M.	Ocean No. 5,	Allegheny,	Leg broken by fall of slate at face of room.
29	James Devits,	Italian,	Miner,	31	M.	Ocean No. 2,	Allegheny,	Hip injured by fall of slate on pillar work.

CONDITION OF MINES

PITTSBURG COAL COMPANY

Banning No. 1.—Ventilation and drainage good. Improved water-cars are used to water the mine. Permissible explosives used exclusively in the mine. Ninety safety lamps in use.

Banning No. 2.—Ventilation good. Drainage as a whole good. Improved water-cars are used to water the mine. Permissible explosives are used in parts of the mine, and I recommended that these explosives be used exclusively. One hundred and seventy-five safety lamps in use.

Euclid.—Ventilation and drainage good. Improved water-cars are used to lay the dust; the exhaust steam from a pump is also turned into the intakes. Permissible explosives used in parts of the mine, and I recommended that these explosives be used exclusively. Fifty safety lamps in use.

Eureka.—Ventilation good. Drainage good, except in the slope section.

Forest Hill.—Ventilation and drainage good. Shelter holes are required on haulage roads. Improved water-car is used. Sixty-one safety lamps are in use, and I recommended that permissible explosives be used for blasting.

A serious mine fire occurred on the afternoon of May 2. Two roadmen were on their way out of the mine when they discovered the fire on No. 8 face at 13 west entries, where an electric pump was located. A trap door, about three feet from the pump, was burning when discovered, and the brisk air current passing over the fire soon had it beyond control. They notified the mine officials, and several attempts were made to reach the fire, but failed. The stables were located on the return at No. 7 west, and an effort was made to save the stock, but the smoke from the fire had reached the stable and fifteen mules were suffocated.

The superintendent and several others were on No. 8 face at some distance from the fire, when an explosion occurred, which spent its force towards the main entrance. They all retreated by way of the air-shaft located near the face of the main entries. It was decided to seal off the west side of the mine with brick stoppings. The entries from No. 1 west to No. 15 west entries were sealed up and a vent pipe was placed in the stopping at 13 west parallel. This work was completed on May 6. The fire evidently originated at the electric pump and communicated itself to the trap-door.

Guffey.—Ventilation and drainage good. Twenty-four safety lamps in use. Recommended the use of permissible explosives.

Ocean No. 1.—Ventilation reasonably good. Drainage good. Improved water-cars used to water the mine. Eighty-six safety lamps in use. Recommended that permissible explosives be used for blasting.

Ocean No. 2.—Ventilation and drainage good. Improved water-cars used to water the mine. Eighty-four safety lamps in use. Recommended that permissible explosives be used for blasting.

Ocean Nos. 3 and 4.—In fairly good condition as to ventilation and drainage. Thirty-four safety lamps in use. Recommended the use of permissible explosives.

Ocean No. 5.—The ventilation is very good throughout the mine. Drainage reasonably good. Improved water-cars used to water the mine. Ninety safety lamps in use. Recommended the use of permissible explosives.

Painter and Sarah.—In fairly good condition. Recommended the use of permissible explosives. Thirty-five safety lamps in use in Sarah mine.

Shaner.—Ventilation good. Drainage fairly good. Sixty-four safety lamps in use. Recommended the use of permissible explosives.

Waverly.—Ventilation good. Drainage reasonably good. Twelve safety lamps in use. Improved water-car used to water the mine. Permissible explosives used in parts of the mine and I recommended the exclusive use of these explosives.

Wick Haven.—Ventilation and drainage good. Improved water-cars used to water the mine; also exhaust steam in intake airway. Permissible explosives used in parts of mine and I recommended the exclusive use of these explosives. One hundred and six safety lamps in use.

West Newton.—Condition of mine as to ventilation and drainage reasonably good. Improved water-car used to water the mine. Eighty-four safety lamps in use. Recommended that permissible explosives be used.

Darr and Yough Slope.—Idle.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Bunola.—In fair condition as to ventilation and drainage. A new drift opening 7 x 10 feet was made near the face of workings and an 8-foot fan installed, which improved the ventilation. Recommended the use of permissible explosives for blasting.

Camden.—The ventilation on last inspection was not satisfactory in parts of the mine. Drainage fairly good. Recommended that the ventilation be improved.

Lovedale.—The ventilation was good, except in the workings of 8 1-2 tunnel, where the air current was too weak for efficient ventilation. Drainage fairly good. Thirty-seven safety lamps in use. Recommended that an improved system of watering be provided, and that permissible explosives be used for blasting.

Risher.—Ventilation not satisfactory. Preparations are being made to install a fan near the face of the workings to improve the ventilation. Drainage poor in places. Permissible explosives used in part of the mine.

Rock Run.—In fair condition.

Walton No. 2.—Conditions fair. The ventilation in parts of the mine was not satisfactory. Improvements are being made to increase the ventilation at the face of the workings. Recommended the use of permissible explosives.

Yough No. 2.—The ventilation was fairly good, except in several butt entries, where the air-current was rather weak. Improvements are being made to increase the ventilation in the workings. Drainage good. Improved water-car used and the exhaust steam from the fan turned into the mine. Fifty safety lamps in use. Recommended the use of permissible explosives.

PENN GAS COAL COMPANY

Penn Gas No. 3.—Ventilation and drainage very good. Main haulage roads neat and clean. Improved water-cars used. Permissible explosives used exclusively, and 100 safety lamps in use.

A fire occurred in this mine on the evening of May 24. Two machine men, who were at work in 22 butt upper mains, discovered that something was wrong with the electric power and went to investigate. On 21 butt they found that a fall had broken down the electric wires and a fire had started. They notified the mine officials, who, on their arrival, found a brisk fire burning. They fought the fire with water until the following day, when it was decided to seal off the two butt entries with brick stoppings. This work was completed on the 26th, and a vent pipe was placed in one of the stoppings. September 11 the sealed section was opened and the fire was found to be extinguished.

BLAINE COAL COMPANY

Blaine.—Sanitary conditions good. The ventilation in the major portion of the mine was reasonably good, but too sluggish in other parts. Drainage, with a few exceptions, fairly good. The exhaust steam from the fan is turned into the mine, and there are twenty-seven water sprays located in different sections of the mine to saturate the air. Recommended that permissible explosives be used for blasting.

UNITED COAL COMPANY

Patterson No. 2.—Ventilation and drainage as a whole reasonably good. Improved water-car in use. Permissible explosives used exclusively; 35 safety lamps in use.

YOUGHIOGHENY AND OHIO COAL COMPANY

Howe.—Ventilation and drainage good. This mine will soon be exhausted.

LAKE SHORE GAS COAL COMPANY

Ayers Hollow.—Ventilation fairly good, except at the face of the workings. Recommended that the ventilation be improved. Drainage reasonably good. Recommended that permissible explosives be used for blasting.

Dravo.—Idle.

CLAIR AND ROCKWELL COAL COMPANY

Dilworth.—Conditions fair. The workings are mainly along the crop.

BELLE BRIDGE MINING COMPANY

Belle Bridge.—Sanitary condition good. Pick mining; no blasting. Leased from the Monongahela River Consolidated Coal and Coke Company.

BOWMAN BROTHERS COMPANY

Bowman.—General conditions good.

SMITHDALE COAL COMPANY

Guiler.—Abandoned in April.

MYERS COAL COMPANY

Osceola.—Not under the law.

The improved water-cars in use in the district sprinkle the sides, roof and floor of entries, and are mainly used on the haulage ways. The success of this system of watering the haulageways depends upon the regular and systematic manner in which it is applied.

IMPROVEMENTS

PITTSBURG COAL COMPANY

Banning No. 1.—With a few exceptions all wooden stoppings have been replaced with brick, also jambs of all main doors are built of brick. Five air-locks established in different parts of the mine to maintain a continuous air-current when one of the doors are opened. Cleaned return airways. Drove a rock tunnel through the swamp on the north return airway to prevent the water from blocking the return. Enlarged bottom of airshaft. Installed four improved water-car sprinklers. Made 125 shelter holes on main haulage roads. Built two brick pump houses, enclosing electric pumps. Outside: Frame repair shop built.

Banning No. 2.—Fifteen brick overcasts and two fireproof undercasts, one hundred and fifty brick stoppings, four fireproof pump-houses enclosing electric pumps, and two fireproof griper's shanties built. Additional airway, 4,500 feet long, and traveling way from the old Whitsett entrance. Motor road extended 8,000 feet. One improved enclosed electric mining machine installed.

Euclid.—The ventilation has been improved by building six brick overcasts and twenty-seven brick stoppings, also additional return airways to air shaft. Motor haulage extended 2,000 feet. One 15-ton Jeffery motor installed.

Outside.—One 75 K. W. General Electric generator, driven by a 150 horse-power McEwen engine, with a No. 3 Stillwell and Bierce heater, installed; also one 1,200 barrel supply tank. Head frame plumbed and new guides, size 5¾ x 6¾ inches, placed in the shaft.

Eureka.—One overcast and eighteen brick stoppings built. Installed one pump. Outside.—Engine and sand house built.

Forest Hill.—Thirty-three brick stoppings and five fireproof pump houses, enclosing electric pumps, built. Motor road extended 1,200 feet.

Ocean No. 1.—Fifty brick stoppings and three brick overcasts built; also additional return airway on the right of King tunnel.

Ocean No. 2.—Built ten brick stoppings and one brick overcast; also stable in new section.

Ocean No. 5.—Built forty-five brick stoppings and four brick pump houses enclosing electric pumps.

Sarah.—Two brick stoppings and one concrete pump-house built.

Waverly.—Sixteen brick stoppings built. Motor road extended 1,400 feet. Outside.—Lamp house built.

Wick Haven.—One hundred and forty-five brick stoppings, six brick overcasts and one fireproof pump-house built. Motor road extended 1,000 feet. Additional airway, 2,400 feet long. Outside.—Lamp house built.

West Newton.—Sixteen brick stoppings, one brick overcast, and brick walls built at pumps, dilly engine and safety lamp station. One drilling machine and one 7½ horse power centrifugal pump installed.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Bunola.—Twenty permanent stoppings and five permanent overcasts built. An 8-foot Stine fan installed.

Lovedale.—Built three concrete overcasts and replaced a number of wooden stoppings with concrete. Outside.—Lamp house built.

Risher.—A drift opening 7 x 10 feet made near face of workings. Additional pump with an 8-inch suction and 6-inch discharge installed. Motor road extended 1,500 feet.

Walton No. 2.—Three permanent overcasts and eight concrete stoppings built. Motor road extended 1,800 feet; 1,200 feet of main return airway cleaned. Sunk a shaft 8 x 8 feet and 34 feet in depth.

Outside.—Installed one stationary engine at the tipple.

Yough No. 2.—Built three brick overcasts and replaced a number of wooden stoppings with concrete.

PENN GAS COAL COMPANY

Penn Gas No. 3.—Sixty-two permanent stoppings and fourteen brick overcasts built; also replaced a number of wooden stoppings with brick. Motor road extended 800 feet.

BLAINE COAL COMPANY

Blaine.—Six permanent stoppings and one overcast built.

UNITED COAL COMPANY

Patterson No. 2.—Forty-one permanent stoppings and four overcasts built. One bore hole 226 feet deep put down for pumping. Additional pump, 10 x 12 inch with an 8-inch suction and 7-inch discharge. Sixteen ton motor and two mining machines installed.

BOWMAN BROTHERS COMPANY

Bowman.—A 4-foot American Blower fan installed.

PROSECUTIONS FOR VIOLATION OF THE MINING LAWS

On information received, Albert West, a miner employed at the Ella mine of the United Coal Company, was arrested, charged with passing a danger signal in said mine. He waived a hearing. A true bill was found March 10. The defendant entered a plea of guilty and the Court sentenced him to thirty days in jail and to pay the costs.

Frank Bane, a loader employed in the Penn Gas No. 3 mine, was charged with carrying black powder into the mine in a sock February 14. He entered a plea of guilty, and was sentenced to pay a fine of twenty dollars and the costs.

John Sesnak, employed at the Sunnyside mine of the Monongahela River Consolidated Coal and Coke Company, was charged with pass-

ing the permanent danger signal on the morning of March 31. He entered a plea of guilty and the Court sentenced him to thirty days in jail and to pay the costs of prosecution.

Angelo Sascini, employed in Ocean No. 1 mine of the Pittsburg Coal Company, was arrested, charged with passing a danger signal. Defendant had a hearing August 21 and was held for court. September 13 the case came on for trial, but the defendant did not appear. The case was tried in his absence and he was found guilty. His recognizance was forfeited.

James Cannon, mine foreman at Ocean No. 1 mine, of the Pittsburg Coal Company, was charged with failure to require the workmen in said mine to use locked safety lamps in pillar workings, also to provide shelter holes on part of the motor road. He waived a hearing. November 9 he entered a plea of "nolo contendere" and was sentenced by the Court to pay a fine of six and one-fourth cents and the costs.

On information received, Charles Horwatt, employed at Banning No. 1 mine of the Pittsburg Coal Company, was arrested, charged with passing a danger signal. The defendant had a hearing before Justice of the Peace D. M. Bierer, of Uniontown, and was discharged on the ground that he could not read English, and had only been employed in the mine a short time, and had no instructions as to what a danger signal meant.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Empire Hall, McKeesport, April 6, 7 and 8.

The Board of Examiners was composed of John F. Bell, Inspector; James Henderson, Superintendent, and William Lauder, Mine Foreman.

There were seventy applicants examined, eighteen for certificates as Mine Foremen and fifty-two for certificates as Fire Bosses. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

James Richardson, Albert Hoenshel, John D. Robertson, Robert Daugherty, Edward H. Miller, J. E. O'Hara and William T. Duff.

Second Grade

P. B. Schubert.

FOURTEENTH DISTRICT

ALLEGHENY, INDIANA, WESTMORELAND, ARMSTRONG AND BUTLER COUNTIES

Freeport, Pa., March 12, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I herewith transmit my annual report for the Fourteenth Bituminous District for the year ending December 31, 1909.

I was transferred to this district July 1, 1909, from the Sixteenth District.

The report contains the usual statistics and tables, a brief description of the accidents, the most important improvements made during the year, a report of the annual examination of applicants for mine foremen's certificates, and a report of the legal proceedings.

Respectfully submitted,

DAVID YOUNG,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	77
Number of mines in operation,	66
Number of tons of coal shipped to market,	5,441,979
Number of tons used at mines for steam and heat,	138,164
Number of tons sold to local trade and used by employes,	94,467
Number of tons used in the manufacture of coke,	1,884
Number of tons of coal produced,	5,676,494
Number of tons of coke produced,	1,095
Number of coke ovens,	60
Number of coke ovens in operation,	8
Number of tons of coal produced by pick mining,	2,005,988
Number of tons produced by compressed air machines,	2,380,908
Number of tons produced by electrical machines,	1,289,598
Number of persons employed inside of mines,	6,174
Number of persons employed outside including coke workers,	932
Number of persons employed at manufacture of coke,	1
Number of fatal accidents inside of mines,	15
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	23
Number of non-fatal accidents outside,	———
Number of tons of coal produced per fatal accident inside,	378,433
Number of persons employed per fatal accident inside,	412
Number of persons employed per fatal accident outside,	931
Number of persons employed per non-fatal accident inside,	268
Number of persons employed per non-fatal accident outside,	———
Number of wives made widows,	8
Number of children made orphans,	13
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	2
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	36
Number of electric motors used outside,	———
Number of fans in use,	50
Number of furnaces in use,	12
Number of gaseous mines in operation,	16
Number of non-gaseous mines in operation,	50
Number of new mines opened,	4
Number of old mines abandoned,	1

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburg Gas Coal Company,	1,132,627
New York and Cleveland Gas Coal Company,	457,070
Allegheny Coal Company,	317,143
Bessemer Coal and Coke Company,	309,702
Saltsburg Coal Company,	238,799
Cornell Coal Company,	237,099
Pittsburg Plate Glass Company,	230,016
Pennsylvania Salt Manufacturing Company,	154,668
Cochran Coal Company,	136,113
Howard Gas Coal Company,	114,174
Avonmore Coal and Coke Company,	113,574
Joseph G. Beale and Company,	111,284
McKean Coal Company,	106,787
Pine Run Company,	105,775
Graff Coal Company,	98,814
Valley Camp Coal Company,	98,477
Allegheny Coal and Coke Company,	84,448
McFetridge Brothers,	83,794
Conemaugh Coal Company,	83,588
United States Sewer Pipe Company,	69,865
Apollo Coal Company,	69,300
Leechburg Coal and Coke Company,	67,919
Mitchell-Watson Coal Company,	56,487
Lucesco Coal Company,	53,819
Kiskiminetas Coal Company,	52,210
Edri Coal Company,	52,190
West Penn Coal Mining Company,	49,996
Smith Coal Company,	49,758
Bowman Coal Company,	49,678
Paulton Coal Mining Company,	48,000
Ben Franklin Coal Company,	48,000
Gilpin Coal Company,	47,992
Thomas Maher,	46,173
Kerr Coal Company,	46,110
Valley Coal Company,	45,877
Raridan Coal Company,	45,588
Butler Junction Coal Company,	44,181
Haddon Coal Company,	43,349
Bagdad Coal and Coke Company,	42,313
Keystone Coal Company,	42,176
Lewis Coal Company,	38,087
Pine Run Coal and Coke Company,	37,597
Boyd Brothers Coal Company,	35,337
Maher Coal and Coke Company,	34,537
West Leechburg Steel and Tin Plate Company,	33,525

American Sheet and Tin Plate Company,	30,670
Logansport Coal Company,	30,082
Hamilton Coal Mining Company,	29,481
West Penn Mining Company,	28,655
Dalliba Coal Company,	23,088
Provident Coke and Mining Company,	17,345
Braeburn Steel Company,	17,096
Kier Fire Brick Company,	13,490
Ford Collieries Company,	6,496
Superior Fuel Company,	6,493
John Peterman,	4,700
Vandergrift Coal Company,	2,663
George E. Boyd,	2,219
Total,	5,676,494

Production by Counties

Allegheny,	2,042,597
Indiana,	1,814,151
Westmoreland,	1,137,041
Armstrong,	636,595
Butler,	46,110
Total,	5,676,494

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburg Gas Coal Co.,	2		2	1		1	566,313	1,132,627	1,035	235	1,270	517		1,035	
New York and Cleveland Gas Coal Co.,	1	1	2				457,070		520	46	566	520	46		
Allegheny Coal Co.,	1		1	3		3	317,143	105,714	278	45	323	278		93	
Bessemer Coal and Coke Co.,	2		2	1		1	154,851	309,702	350	50	400	175		50	
Saltsburg Coal Co.,				2		2		119,399	325	24	349			162	
Cornell Coal Co.,	1		1	1		1	237,099	237,099	173	25	198	173		173	
Pittsburg Plate Glass Co.,				4		4		57,504	229	21	250			57	
Pennsylvania Salt Manufacturing Co.,	1		1				154,668		100	19	119	100			
Cochran Coal Co.,	2		2				68,056		169	19	188	84			
Howard Gas Coal Co.,				2		2		57,087	124	24	148			62	
McKean Coal Co.,				1		1		106,787	80	17	97			80	
Valley Camp Coal Co.,	1		1	3		3	98,477	32,826	79	8	87	79		26	
Allegheny Coal and Coke Co.,				1		1		84,448	77	5	82			77	
United States Sewer Pipe Co.,	1		1	1		1	69,865	69,865	108	13	121	108		108	
Apollo Coal Co.,	1		1				69,300		105	12	117	105			
Lucesco Coal Co.,				1		1		53,819	82	10	92			82	
West Penn Coal Mining Co.,	1		1				49,996		60	9	69	60			
Raridan Coal Co.,				1		1		45,588	75	9	84			75	
American Sheet and Tin Plate Co.,				1		1		30,670	35	2	37			35	
Provident Coke and Mining Co.,	1		1				17,345		62	12	74	62			
Miscellaneous Companies,									2,108	326	2,434				
Totals and averages for district,	15	1	16	23		23	378,433	246,804	6,174	931	7,105	412	931	268	

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	1	----	----	----	----	----	----	----	----	1	6.67
Falls of slate,	1	----	1	----	1	2	----	1	----	----	----	----	6	40.00
Falls of roof,	----	----	----	----	1	----	----	----	----	----	1	----	2	13.32
Mine cars,	----	2	----	----	----	----	----	----	----	----	----	3	5	33.34
Electricity,	----	----	----	----	----	----	----	1	----	----	----	----	1	6.67
Totals,	1	2	1	1	2	2	----	2	----	----	1	3	15	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	1	----	----	----	----	----	----	----	1	100.00
Totals,	----	----	----	----	1	----	----	----	----	----	----	----	1	100.00
Grand totals inside and outside,	1	2	1	1	3	2	----	2	----	----	1	3	16	------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of slate,	----	2	----	----	----	1	1	----	----	1	1	2	8	34.78
Falls of roof,	----	----	----	----	----	----	----	----	----	----	1	----	1	4.35
Mine cars,	----	1	1	----	----	----	2	2	----	----	2	3	11	47.82
Explosions of powder and dynamite,	----	----	----	----	----	----	----	----	----	----	1	----	1	4.35
Blasts, premature and otherwise,	----	----	----	----	----	----	----	----	1	----	----	----	1	4.35
Electricity,	----	----	----	----	----	----	----	----	----	----	1	----	1	4.35
Totals,	----	3	1	----	----	1	3	2	1	1	6	5	23	100.00
Causes of Accidents Outside (No Accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	....	1	1	2	....	1	....	....	1	....	6
Machine loaders,	1	....	1	....	1	....	....	....	....	....	....	....	3
Machine scrapers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Drivers and runners,	....	2	....	....	....	....	....	....	....	....	....	1	3
Doorboys and helpers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Snappers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	1	2	1	1	2	2	....	2	....	....	1	3	15
Outside													
Motormen,	....	....	....	....	1	....	....	....	....	....	....	....	1
Totals,	....	....	....	....	1	....	....	....	....	....	....	....	1
Grand totals inside and outside,	1	2	1	1	3	2	....	2	....	....	1	3	16

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	....	....	....	....	....	1	1	1	....	1	3	....	7
Machine loaders,	....	1	....	....	....	....	1	....	1	....	2	2	7
Machine scrapers,	....	1	....	....	....	....	....	....	....	....	....	....	1
Drivers and runners,	....	1	....	....	....	....	1	....	....	....	1	1	4
Doorboys and helpers,	....	....	....	....	....	....	....	1	....	....	....	....	1
Company men,	....	....	....	....	....	....	....	....	....	....	....	1	1
Motormen,	....	....	1	....	....	....	....	....	....	....	....	....	1
Snappers,	....	....	....	....	....	....	....	....	....	....	....	1	1
Totals,	....	3	1	....	....	1	3	2	1	1	6	5	23
Outside (No Accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	1	----	----	1	----	----	2	----	----	----	----	4
Polish,	1	----	1	----	1	1	----	----	----	----	----	1	5
Hungarian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Italian,	----	----	----	1	1	----	----	----	----	----	----	2	4
Slavonian,	----	1	----	----	----	1	----	----	----	----	----	----	2
Totals,	1	2	1	1	3	2	----	2	----	----	1	3	16

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	----	----	----	----	1	----	----	1	1	3
English,	----	----	1	----	----	----	----	----	----	----	----	----	1
Scotch,	----	----	----	----	----	----	----	----	----	----	1	----	1
German,	----	----	----	----	----	----	----	----	----	----	1	1	2
Polish,	----	2	----	----	----	----	1	----	----	----	1	----	4
Hungarian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Italian,	----	1	----	----	----	1	1	----	----	----	----	1	4
Slavonian,	----	----	----	----	----	----	1	----	1	1	1	2	6
Swedish,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	----	3	1	----	----	1	3	2	1	1	6	5	23

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pittsburg Gas Coal Co.																
Iselin No. 1,	Drifts,	Non-gas.	Fan,	16	6	7.5	118	2.3	Capell,	Steam,	----	6	153,600	72,700	161,000	430
Iselin No. 2,				12.5	5	6.	126	1.7			----	4	74,460	53,460	85,000	323
Iselin No. 3,				12.5	5	6.	110	1.			----	7	134,400	74,560	138,000	282
New York and Cleveland Gas Coal Co.																
Plum Creek,	Drift,	Non-gas.	Fan and Furnace.	7.	1.3	2.7	300	0.5	Stine,	Electricity,	60	10	118,000	99,800	120,000	290
Sandy Creek,	Drift,	Non-gas.	Furnace,	------	------	------	------	------	------	------	42	4	63,500	51,850	70,500	230
Allegheny Coal Co.																
Harwick,	Shaft,	Gaseous,	Fan,	13.5	7.	6.5	130	1.2	Capell,	Steam,	----	8	141,000	71,080	145,000	278
Bessemer Coal and Coke Co.																
Bessemer No. 1,	Shaft,	Gaseous,	Fan,	13.5	7.	6.5	125	.8	Capell,	Steam,	----	5	108,500	99,000	110,000	350
Saltsburg Coal Co.																
Foster No. 1,	Drifts,	Non-gas.	Fan,	16	4	4	80	1.	Guibal,	Steam,	----	2	64,000	30,000	66,000	110
Foster No. 2,				8	4	3.7	260	1.4	Kurderer	Steam,	----	2	62,400	30,880	65,000	140
Foster No. 3,				7	1.3	2.7	125	0.3	Stine,	Electricity,	----	1	27,000	21,000	31,000	75

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Cornell Coal Co.																
Cornell,	Slope,	Gaseous,	Fan,	11	7	3	200	2.5	American Blower.	Steam,		4	65,000	40,440	70,000	173
Pittsburg Plate Glass Co.																
Creighton,	Drift,	Gaseous.	Fan,	20	6	5	65	1.2	Guibal,	Steam,		3	144,000	56,500	148,500	229
Pennsylvania Salt Manufacturing Co.																
Natrona No. 1,	Drift,	Non-gas.	Fan,	16	5	4.5	65	0.4	Brazil,	Electricity,		1	35,000	16,500	39,500	100
Cochran Coal Co.																
Cochran No. 1,	Drift,	Non-gas.	Fan,	16	5	4.2	78	1.3	Guibal,	Steam,		2	66,000	24,960	70,000	169
Howard Gas Coal Co.																
Mt. Gray,	Drift,	Non-gas.	Fan,	13	4	3	80	0.75	Brazil,	Steam,		2	32,000	24,520	35,000	124
Avonmore Coal and Coke Co.																
Avonmore,	Drift,	Non-gas.	Fan,	16	4	4	82	1.1	Guibal,	Steam,		4	49,000	30,700	50,000	149
Joseph G. Beale and Co.																
Beale,	Drift,	Non-gas.	Fan,	12	4	3	115	0.5	Brazil,	Steam,		2	36,000	22,000	40,000	66
Aladdin,	Drift,	Non-gas.	Furnace,								30	2	28,800	11,820	28,800	42
McKean Coal Co.																
Peterson,	Drift,	Gaseous,	Fan,	8	1.5	3.3	130	0.4	Stine,	Steam,		2	48,000	29,400	50,000	80

Pine Run Co.																	
Lewis,	Drift,	Non-gas.	Fan,	16	4.5	4.5	60	0.5	Brazil,	Steam,		2	36,000	19,800	38,800	74
Graff Coal Co.																	
Black Lick,	Drift,	Non-gas.	Natural,									2	39,500	39,500	40,000	90
Valley Camp Coal Co.																	
Valley Camp,	Drift,	Gaseous,	Fan,	8	3.5	1.	200	1.8	Jeffrey,	Electricity,		1	60,000	12,000	60,000	79
Allegheny Coal and Coke Co.																	
Avenue,	Drift,	Non-gas.	Fan,	16	6	4	100	0.8	Clifford,	Electricity,		2	39,600	19,800	40,000	77
McFetridge Brothers																	
Hite,	Drift,	Gaseous,	Fan,	8	5	2.6	220	0.5	Capell,	Steam,		2	43,000	25,000	44,000	86
Conemaugh Coal Co.																	
Conemaugh,	Drift,	Non-gas.	Fan,	12	3.8	3.4	100	0.4	Brazil,	Steam,		2	40,000	19,500	40,800	83
United States Sewer Pipe Co.																	
Johnetta No. 2,	Shaft,	Gaseous,	Fan,	10	5.5	2.7	720	0.4	Pittsburg Stoker.	Electricity,		1	32,600	11,340	33,000	108
Apollo Coal Co.																	
Northwest,	Drift,	Non-gas.	Fan,	12	5	3.5	100	1.4	Lepley,	Steam,		2	33,400	15,500	35,000	105
Leechburg Coal and Coke Co.																	
Riverview,	Drift,	Gaseous	Fan,	12	4.3	4.8	110	2.2	Clifford,	Steam,		1	36,000	18,800	38,000	64
Hill.*	Drift,	Non-gas.										1	40,000	12,000	40,000	55
Mitchell-Watson Coal Co.																	
Mitchell-Watson,	Drift,	Non-gas.	Fan,	12	4	3	80	0.5	Brazil,	Steam,		2	40,600	22,080	42,000	77
Lucesco Coal Co.																	
Lucesco,	Drift,	Non-gas.	Fan,	8	3.5	3.8	300	0.8	Robinson,	Steam,		2	26,000	14,200	26,000	82
Kiskiminetas Coal Co.																	
Tunnelton,	Drift,	Non-gas.	Fan,	16	4	4	55	0.5	Brazil,	Steam,		1	13,000	7,000	15,000	50
Edri Coal Co.																	
Edri,	Drift,	Non-gas.	Fan,	12	3.5	3	60	0.3	Brazil,	Steam,		2	30,000	30,000	32,000	79
West Penn Coal Mining Co.																	
West Penn No. 1,	Drift,	Gaseous.	Fan,	7	1.3	2.7	212	0.7	Stine,	Steam,		1	32,000	16,000	33,000	60

*Ventilated by fan at Riverview.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Smith Coal Co.																
Smith,	Drift,	Non-gas.	Furnace,								30	3	22,300	22,300	24,000	47
Bowman Coal Co.																
Bowman,	Drift,	Non-gas.	Furnace,								80	2	30,000	23,900	31,000	61
Paulton Coal Mining Co.																
Paulton,	Drift,	Gaseous,	Fan,	16	4	4.5	72	0.7	Brazil,	Steam,		2	54,000	21,200	55,000	84
Ben Franklin Coal Co.																
Metcalf,	Drift,	Non-gas.	Furnace,								36	1	16,000	6,960	16,000	39
Gilpin Coal Co.																
Gilpin,	Drift,	Non-gas.	Furnace,								48	2	30,000	15,920	31,000	71
Thomas Maher																
Thomas Maher,	Drift,	Non-gas.	Furnace,								30	1	18,000	13,000	18,000	34
Kerr Coal Co.																
Kerr No. 8,	Drift,	Non-gas.	Fan,	8					Sirocco,	Electricity,		1	49,200	43,200	50,000	59
Valley Coal Co.																
Valley,	Drift,	Non-gas.	Fan,	10	3	2.5	100	0.5	Brazil,	Steam,		1	21,600	9,500	22,000	54
Raridan Coal Co.																
Raridan,	Drift,	Non-gas.	Fan,	15	4.5	4.	50	0.5	Brazil,	Steam,		1	21,000	14,000	22,000	75

Butler Junction Coal Co. Butler Junction,	Drift,	Non-gas.	Fan,	14	4	4.3	72	0.4	Brazil,	Gas,		1	27,000	10,000	27,000	46
Haddon Coal Co. Haddon,	Drift,	Non-gas.	Fan,	12	4	3	75	0.6	Kenney,	Gas,		2	27,800	16,800	28,000	72
Bagdad Coal and Coke Co. Bagdad,	Drift,	Non-gas.	Fan,	12	3.6	3	70	0.4	Kenney,	Gas,		1	25,000	12,000	25,000	66
Keystone Coal Co. Mooween,	Drift,	Non-gas.	Fan,	7	4	1.5	175	0.4	Buffalo,	Steam,		1	15,600	8,000	16,000	44
Lewis Coal Co. Blackstone,	Drift,	Non-gas.	Fan,	12	3.5	3	60	0.4	Brazil,	Steam,		2	14,000	12,500	15,000	64
Pine Run Coal and Coke Co. Pine Run No. 1,	Drift,	Non-gas.	Fan,	12	3.8	3.5	70	0.4	Brazil,	Steam,		1	25,600	10,500	27,000	67
Boyd Brothers Coal Co. Boyd,	Drift,	Non-gas.	Fan,	5	1	2	250	0.3	Stine,	Steam,		1	12,000	9,000	14,000	26
Maher Coal and Coke Co. Maher No. 4,	Drift,	Non-gas.	Fan,	12	4	3	78	1.5	Brazil,	Gas,		2	26,600	20,800	28,000	54
West Leechburg Steel and Tin Plate Co. West Leechburg,	Drift,	N gas.	Fan,	10	3	2.5	100	0.3	Brazil,	Electricity,		1	28,000	15,000	29,000	29
American Sheet and Tin Plate Co. Kirkpatrick,	Drift,	N gas.	Furnace,								56	1	23,100	9,600	24,000	35
Logansport Coal Co. Bethel,	Drift,	N gas.	Furnace,								36	1	12,000	5,000	14,000	45
Hamilton Coal Mining Co. Crag Dell,	Drift,	G ous,	Fan,	6	1.2	2.5	250	0.4	Stine,	Electricity,		1	28,000	9,000	28,000	34
West Penn Mining Co. West Penn,	Drift,	N gas.	Furnace,								48	2	26,400	16,200	27,000	26
Dalliba Coal Co. Dalliba,	Drift,	G ous,	Fan,	12	4	3.3	90	0.75	Brazil,	Gas,		1	32,500	10,600	33,000	35

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Provident Coke and Mining Co.																
Provident No. 1,	Drift,	Non-gas.	Fan,	7	1.3	2.7	100	0.3	Brazil,	Steam,		1	27,000	16,000	28,000	62
Braeburn Steel Co.																
Braeburn,	Drift,	Non-gas.	Fan,	4	3.5	1.8	300	0.4	Capell,	Electricity,		1	18,000	8,000	19,500	21
Kier Fire Brick Co.																
Kier,	Drift,	Non-gas.	Fan,	12	3.5	3.2	54	0.3	Brazil,	Steam,		1	20,000	7,000	20,000	9
Ford Collieries Co.																
Francis,*	Shaft,	Gaseous,	Fan,**	16	8	4			Capell,	Steam,			12,000			22
Benjamin,*	Shaft,	Gaseous,	Fan,**	16	8	4			Capell,	Steam,			12,000			22
Superior Fuel Co.																
Superior No. 1,*	Shaft,	Gaseous,	Fan,**	18	8	5.5			Robinson,	Steam,			16,000	16,000	16,000	48
John Peterman																
John Peterman,	Slope,	Non-gas.	Natural,									1	3,000	1,800	3,000	10
Vandergrift Coal Co.																
Vandergrift,	Drift,	Non-gas.	Fan,	7	1.3	2.7	110	0.2	Stine,	Steam,		1	10,000	9,000	12,000	7
George E. Boyd																
Elizabeth,	Drift,	Non-gas.	Furnace,								30	1	5,000	5,000	5,000	6

*New shaft under construction. **New fan not yet installed.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in inches: Thickest	Height of Seam in inches: Thinnest	Approximate number of tons produced by machines
Pittsburg Gas Coal Co.,	Iselin No. 1,	Drift,	Non-gas.	45	Compressed Air,	Pittsburg,	66	88	44	449,429
	Iselin No. 2,	Drift,	Non-gas.	42						377,118
	Iselin No. 3,	Drift,	Non-gas.	44						306,080
Totals,				131						1,132,627
Allegheny Coal Co.,	Harwick,	Shaft,	Gaseous,	7	Compressed Air and Electricity.	Upper Freeport,	63	73	53	*264,111
Bessemer Coal and Coke Co.,	Bessemer No. 1,	Shaft,	Gaseous,	25	Compressed Air,	Upper Freeport,	78	90	66	*251,086
Saltsburg Coal Co.,	Foster Nos. 1, 2, 3,	Drifts,	Non-gas.	14	Compressed Air and Electricity.	Pittsburg,	72	78	60	*203,355
				6						
Cornell Coal Co.,	Cornell,	Slope,	Gaseous,	4	Electricity,	Upper Freeport,	72	74	70	*232,778
Pittsburg Plate Glass Co.,	Creighton,	Drift,	Gaseous,	7	Electricity,	Upper Freeport,	78	84	72	*218,394
Pennsylvania Salt Manufacturing Co.,	Natrona No. 1,	Drift,	Non-gas.	7	Electricity,	Upper Freeport,	45	48	42	*154,668
Cochran Coal Co.,	Cochran No. 1,	Drift,	Non-gas.	9	Electricity,	Upper Freeport,	52	52	52	136,113
Howard Gas Coal Co.,	Mt. Gray,	Drift,	Non-gas.	15	Compressed Air,	Pittsburg,	78	96	60	114,174
Joseph G. Beale and Co.,	Beale and Aladdin,	Drifts,	Non-gas.	17	Compressed Air,	Upper Freeport,	44	50	38	111,284
McKean Coal Co.,	Peterson,	Drift,	Gaseous,	11	Compressed Air,	Upper Freeport,	69	78	60	*90,787
Pine Run Co.,	Lewis,	Drift,	Non-gas.	5	Electricity,	Upper Freeport,	42	44	40	*97,644
Valley Camp Coal Co.,	Valley Camp,	Drift,	Gaseous,	4	Electricity,	Upper Freeport,	74	76	72	98,477
United States Sewer Pipe Co.,	Johnetta No. 2,	Shaft,	Gaseous,	8	Electricity,	Lower Kittanning.	40	48	32	68,865

*Part of coal produced by pick mining.

TABLE J.—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in inches: Thickest	Height of Seam in inches: Thinnest	Approximate number of tons produced by machines
Leechburg Coal and Coke Co.,	Riverview,	Drift,	Gaseous,	10	Compressed Air and Electricity,	Upper Freeport,	42	48	36	*25,409
	Hill,	Drift,	Non-gas.	2		Upper Freeport,	42	48	36	8,735
Totals,				12						34,144
Mitchell-Watson Coal Co.,	Mitchell-Watson,	Drift,	Non-gas.	9	Compressed Air and Electricity.	Upper Freeport,	39	42	36	14,12)
Kiskiminetas Coal Co.,	Tunnelton,	Drift,	Non-gas.	3	Electricity,	Upper Freeport,	38	44	32	52,210
West Penn Coal Mining Co.,	West Penn No. 1,	Drift,	Gaseous,	3	Electricity,	Lower Kittanning.	43	48	38	49,771
Paulton Coal Mining Co.,	Paulton,	Drift,	Gaseous,	8	Compressed Air,	Upper Freeport,	43	50	35	*40,704
Ben Franklin Coal Co.,	Metcalf,	Drift,	Non-gas.	4	Electricity,	Upper Freeport,	49	54	44	48,000
Kerr Coal Co.,	Kerr No. 8,	Drift,	Non-gas.	5	Electricity,	Upper Freeport,	41	44	38	*38,110
Raridan Coal Co.,	Raridan,	Drift,	Non-gas.	5	Compressed Air,	Upper Freeport,	42	44	40	45,588
Keystone Coal Co.,	Mooween,	Drift,	Non-gas.	4	Electricity,	Upper Freeport,	41	44	38	*41,232
Logansport Coal Co.,	Bethel,	Drift,	Non-gas.	5	Compressed Air,	Upper Freeport,	41	44	38	30,082
Hamilton Coal Mining Co.,	Crag Dell,	Drift,	Gaseous,	3	Electricity,	Upper Freeport,	51	60	42	29,481
Provident Coke and Mining Co.,	Provident No. 1,	Drift,	Non-gas.	8	Compressed Air,	Upper Freeport,	40	44	36	17,345
Ford Collieries Co.,	Francis,	Shafts,	Gaseous,	2	Compressed Air,	Freeport,	78	80	76	3,697
	Benjamin,			2						2,799
Superior Fuel Co.,	Superior No. 1,	Shaft,	Non-gas.	2	Compressed Air,	Freeport,	53	90	16	6,493
Grand totals,				347						3,670,506

*Part of coal produced by pick mining.

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburg Gas Coal Co. Iselin Nos. 1, 2 and 3,	Indiana,	John Reed,	Reynoldsville,	Thomas D. Reed,	Iselin,	B. R. and P.
New York and Cleveland Gas Coal Co. Sandy Creek, Plum Creek,	Allegheny,	Hugh Dunning,	Wilkinsburg, R. F. D. No. 1,	William Fisher, Hugh Dunning,	Wilkinsburg R. F. D. No. 1, Unity Station,	Pennsylvania Penna., Allegheny Div.
Allegheny Coal Co. Harwick,	Allegheny,	P. Townsend,	Cleveland, Ohio,	S. R. Mercer,	Cheswick,	Penna., Conemaugh Div. and B. and L. E.
Bessemer Coal and Coke Co. Bessemer No. 1,	Allegheny,	F. S. Love,	Russelton,	F. S. Love,	Russelton,	B. and L. E.
Saltsburg Coal Co. Foster Nos. 1, 2 and 3,	Indiana,	Alfred Hicks,	Leechburg,	L. N. Hicks,	Leechburg,	Penna., Conemaugh Div.
Cornell Coal Co. Cornell,	Allegheny,	W. A. Iseman,	Hite,	R. S. Suedden,	Hite,	Penna., Conemaugh Div.
Pittsburg Plate Glass Co. Creighton,	Allegheny,	Jesse K. Johnston,	Charleroi,	Charles E. Craig,	Creighton,	Penna., Conemaugh Div.
Pennsylvania Salt Manufacturing Co. Natrona Nos. 1 and *2,	Allegheny,	E. E. Armstrong,	Natrona,	James Bonsteud,	Natrona,	Penna., Conemaugh Div.
Cochran Coal Co. Cochran No. 1,	Westmoreland,	W. H. H. Miller,	Salina,	W. H. H. Miller,	Salina,	Penna., Conemaugh Div.
Howard Gas Coal Co. Mt. Gray,	Westmoreland,	H. C. Patton,	Greensburg,	H. C. Patton,	Greensburg,	Pennsylvania
Avonmore Coal and Coke Co. Avonmore,	Armstrong,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Greensburg,	Penna., Conemaugh Div.

*Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Joseph G. Beale and Co.						
Beale and Aladdin,	Armstrong,	Joseph G. Beale,	Leechburg,	E. H. Beale,	Leechburg,	Penna., B. and A. V. Div.
McKean Coal Co.						
Peterson,	Allegheny,	George W. Smith,	Tarentum,	George W. Smith,	Tarentum,	Penna., Conemaugh Div.
Pine Run Co.						
Lewis,	Westmoreland,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Graff Coal Co.						
Black Lick,	Indiana,	F. M. Graff,	Blairsville,	F. M. Graff,	Blairsville,	Penna., Conemaugh Div.
Valley Camp Coal Co.						
Valley Camp,	Westmoreland,	George H. Summers,	Arnold,	George H. Summers,	Arnold,	Penna., B. and A. V. Div.
Allegheny Coal and Coke Co.						
Avenue,	Allegheny,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
McFetridge Brothers						
Hite,	Allegheny,	G. H. McFetridge,	Creighton,	G. H. McFetridge,	Creighton,	Penna., Conemaugh Div.
Conemaugh Coal Co.						
Conemaugh,	Indiana,	F. M. Graff,	Blairsville,	F. M. Graff,	Blairsville,	Penna., Conemaugh Div.
United States Sewer Pipe Co.						
Johnetta Nos. *1 and 2,	Armstrong,	J. E. Stewart,	Johnetta,	J. E. Stewart,	Johnetta,	Penna., B. and A. V. Div.
Apollo Coal Co.						
Northwest,	Westmoreland,	H. C. Burket,	Greensburg,	H. H. Tussey,	Salina,	Penna., Conemaugh Div.
Leechburg Coal and Coke Co.						
Hill and Riverview,	Westmoreland,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.

*Idle.

Mitchell-Watson Coal Co. Mitchell-Watson,	Indiana,	James P. Watson,	Saltsburg,	James P. Watson,	Saltsburg,	Penna., Conemaugh Div.
Lucesco Coal Co. Lucesco,	Westmoreland,	Howard C. Patton,	Greensburg,	Howard C. Patton,	Greensburg,	Penna. A. V. Div.
Kiskiminetas Coal Co. Tunnelton,	Indiana,	George Scott, Sr.,	Philipsburg,	H. B. Scott,	Philipsburg,	Penna., Conemaugh Div.
Edri Coal Co. Edri,	Indiana,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
West Penn Coal Mining Co. West Penn No. 1,	Armstrong,	E. D. Davis,	Apollo,	E. D. Davis,	Apollo,	Penna., Conemaugh Div.
Smith Coal Co. Smith,	Indiana,	Ralph B. Smith,	Blairsville,	R. B. Smith,	Blairsville,	Penna., Conemaugh Div.
Bowman Coal Co. Bowman,	Indiana,	S. J. Robinson,	Saltsburg,	S. J. Robinson,	Saltsburg,	Penna., Conemaugh Div.
Paulton Coal Mining Co. Paulton,	Westmoreland,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Ben Franklin Coal Co. Metcalf,	Westmoreland,	M. J. McQuade,	Freeport,	J. J. Mardorf,	Freeport,	Penna., A. V. Div.
Gilpin Coal Co. Gilpin,	Armstrong,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Thomas Maher Thomas Maher,	Westmoreland,	Thomas Maher,	Blairsville,	Thomas Maher,	Blairsville,	Penna., Conemaugh Div.
Kerr Coal Co. Kerr No. 8,	Butler,	R. A. Steim,	Freeport,	R. A. Steim,	Freeport,	Penna., Conemaugh Div.
Valley Coal Co. Valley,	Westmoreland,	Joseph G. Beale,	Leechburg,	E. H. Beale,	Leechburg,	Penna., Conemaugh Div.
Raridan Coal Co. Raridan,	Armstrong,	J. H. Thompson,	Logansport,	J. H. Cristy,	Logansport,	Penna., A. V. Div.
Butler Junction Coal Co. Butler Junction,	Allegheny,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Haddon Coal Co. Haddon,	Armstrong,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.

*Idle.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Bagdad Coal and Coke Co.						
Bagdad,	Armstrong,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Keystone Coal Co.						
Mooween,	Westmoreland,	E. J. Wild,	Meyersdale,	Reuben Street,	Mooween,	Penna., Conemaugh Div.
Lewis Coal Co.						
Blackstone,	Westmoreland,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Pine Run Coal and Coke Co.						
Pine Run Nos. 1 and *2,	Westmoreland,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Leechburg,	Penna., Conemaugh Div.
Boyd Brothers Coal Co.						
Boyd,	Westmoreland,	George E. Boyd,	Tarentum,	George E. Boyd,	Tarentum,	Penna., A. V. Div.
Maher Coal and Coke Co.						
Maher No. 4,	Armstrong,	Thomas Maher,	Blairsville,	Thomas Maher,	Blairsville,	Penna., Conemaugh Div.
West Leechburg Steel and Tin Plate Co.						
West Leechburg,	Westmoreland,	H. W. McKallip,	Leechburg,	H. W. McKallip,	Leechburg,	Penna., Conemaugh Div.
American Sheet and Tin Plate Co.						
Kirkpatrick,	Armstrong,	H. E. Bruce,	Leechburg,	S. T. Shoff,	Leechburg,	Penna., Conemaugh Div.
Logansport Coal Co.						
Bethel,	Armstrong,	R. C. McLean,	Logansport,	R. C. McLean,	Logansport,	Penna., B. and A. V. Div.
Hamilton Coal Mining Co.						
Crag Dell,	Westmoreland,	H. E. Boyd,	Tarentum,	H. W. Boyd,	Tarentum,	Penna., A. V. Div.
West Penn Mining Co.						
West Penn,	Westmoreland,	Alfred Hicks,	Leechburg,	L. W. Hicks,	Tarentum,	Penna., Conemaugh Div.

*Idle.

Dalliba Coal Co.						
Dalliba,	West moreland,	R. B. Smith,	Blairsville,	R. B. Smith,	Blairsville,	Penna., Conemaugh Div.
Provident Coke and Mining Co.						
Provident No. 1,	Armstrong,	John L. Gans,	Connellsville,	John L. Gans,	Connellsville,	Penna., A. V. Div.
Braeburn Steel Co.						
Braeburn,	West moreland,	William Beane,	Braeburn,	William Beane,	Braeburn,	Penna., A. V. Div.
Kier Fire Brick Co.						
Kier,	West moreland,	H. W. Whitesell,	Salina,	William Lorimer,	Salina,	Penna., Conemaugh Div.
Ford Collieries Co.						
**Francis and Benjamin,	Allegheny,	A. R. Pollack,	Butler,	William Thomas,	Harmarville R. F. D. No. 1,	Penna., B. and L. E. Div.
Superior Fuel Co.						
**Superior No. 1,	Allegheny,	Thomas D. Thomas,	Harmarville, R. F. D. No. 1,			Penna., B. and L. E. Div.
John Peterman						
John Peterman,	Allegheny,					Pennsylvania
Vandergrift Coal Co.						
Vandergrift,	West moreland,			S. J. Robinson,	Saltsburg,	Pennsylvania
George E. Boyd Coal Co.						
Elizabeth,	West moreland,	George E. Boyd,	Tarentum,	George E. Boyd,	Tarentum,	Penna., Conemaugh Div.
Dixon Brothers						
*Dixon,	Indiana,			G. W. Dixon,	Blairsville,	Penna., Conemaugh Div.
Roaring Run Mining Co.						
*Roaring Run Nos. 1 and 2,	West moreland,	F. M. Graff,	Blairsville,			Penna., Conemaugh Div.
Clark Coal and Coke Co.						
*Clark,	Butler,	C. B. Clark,	Pittsburg,			Butler Branch of Conemaugh Div., Penna.
Majestic Coal Co.						
*Majestic,	Armstrong,	William Smith,	Ebensburg,			Penna., A. V. Div.
Glendale Coal Co.						
*Glendale Nos. 1 and 2,	Armstrong,	J. C. Reed,	Meyersdale,			Penna., A. V. Div.
Edgecliff Coal Co.						
†Edgecliff,	West moreland,					Penna., Conemaugh Div.

*Idle.
†Abondoned.
**New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Gas Coal Co.																
Iselin No. 1,	Indiana,	424,378	14,500	551	.....	449,429	.....	.....	302	510	1	1	1,460	1,380	.....	.....
Iselin No. 2,		364,878	11,750	490	.....	377,118	.....	.....	302	395	1	....	1,380	1,270	.....	.....
Iselin No. 3,		305,380	10,250	450	.....	306,080	.....	.....	302	365	....	....	1,260	1,150	.....	25
Totals,		1,094,636	36,500	1,491	.....	1,132,627	.....	.....	.....	1,270	2	1	4,100	3,800	.....	25
New York and Cleveland Gas Coal Co.																
Plum Creek,	Allegheny,	273,767	1,575	1,614	.....	276,956	.....	.....	237	314	2	....	900	150	.....	19
Sandy Creek,		178,194	1,263	657	.....	180,114	.....	.....	279	252	....	....	700	.....	.....	21
Totals,		451,961	2,838	2,271	.....	457,070	.....	.....	.....	566	2	....	1,600	150	.....	40
Allegheny Coal Co.																
Harwick,	Allegheny,	307,173	8,293	1,677	.....	317,143	.....	.....	232	323	1	3	.....	.....	.....	27
Bessemer Coal and Coke Co.																
Bessemer No. 1,	Allegheny,	293,545	14,600	1,557	.....	309,702	.....	.....	246	400	2	1	.....	.....	55,350	25
Saltsburg Coal Co.																
Foster Nos. 1, 2 and 3,	Indiana,	233,099	5,500	200	.....	238,799	.....	.....	167	349	....	2	62,500	1,200	.....	14
Cornell Coal Co.																
Cornell,	Allegheny,	189,152	3,116	44,831	.....	237,099	.....	.....	252	198	1	1	10,625	700	18,100	15

Pittsburg Plate Glass Co. Creighton,	Allegheny,	228,842	878	296		230,016			208	250	4			32,700	
Pennsylvania Salt Manufacturing Co Natrona No. 1,	Allegheny,	131,917	19,627	1,240	1,884	154,668	1,095	8	296	119	1		11,750	3,340	3
Cochran Coal Co. Cochran No. 1,	Westmoreland,	132,588	2,435	1,090		136,113			220	188	2		1,200	350	375
Howard Gas Coal Co. Mt. Gray,	Westmoreland,	109,662	3,000	1,512		114,174			243	148		2	12,000	1,000	8
Avonmore Coal and Coke Co. Avonmore,	Armstrong,	112,174	1,200	200		113,574			249	154			32,000		7
Joseph G. Beale and Co. Beale and Aladdin,	Armstrong,	108,610	2,624	50		111,284			228	121			23,600	200	10
McKean Coal Co. Peterson,	Allegheny,	103,510	2,077	1,200		106,787			270	97		1	9,000	200	7,000	7
Pine Run Co. Lewis,	Westmoreland,	103,625	2,150			105,775			237	85			30,500	500		
Graff Coal Co. Black Lick,	Indiana,	98,664	150			98,814			254	100						5
Valley Camp Coal Co. Valley Camp,	Westmoreland,	98,477				98,477			242	87	1	3			16,250	4
Allegheny Coal and Coke Co. Avenue,	Allegheny,	84,348	100			84,448			265	82		1	25,500	500		2
McFetridge Brothers Hite,	Allegheny,	65,154	2,037	16,603		83,794			166	98				650	17,340	10
Conemaugh Coal Co. Conemaugh,	Indiana,	81,088	2,500			83,588			225	96			1,400	100		5
United States Sewer Pipe Co. Johnetta No. 2,	Armstrong,	57,612	11,781	472		69,865		**25	280	121	1	1	22,500	2,200	1,800	6
Apollo Coal Co. Northwest,	Westmoreland,	68,970	180	150		69,300			202	117	1		27,500	100		12
Leechburg Coal and Coke Co. Hill and Riverview,	Westmoreland,	66,919	1,000			67,919			211	134			60,400			6

**Idle.

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Mitchell-Watson Coal Co.																
Mitchell-Watson,	Indiana,	54,246	1,889	352		56,487			221	92			7,500	400		4
Lucesco Coal Co.																
Lucesco,	Westmoreland,	53,426	393			53,819			264	92		1	2,000	50		7
Kiskiminetas Coal Co.																
Tunnelton,	Indiana,	51,400	780	30		52,210			229	60			15,250			6
Edri Coal Co.																
Edri,	Indiana,	51,790	400			52,190			185	88			14,600			4
West Penn Coal Mining Co.																
West Penn No. 1,	Armstrong,	48,948	1,048			49,996			238	69	1		2,175	203		
Smith Coal Co.																
Smith,	Indiana,	49,338	10	410		49,758			242	49						12
Bowman Coal Co.																
Bowman,	Indiana,	48,831	280	567		49,678			213	67			7,125	50		7
Paulton Coal Mining Co.																
Paulton,	Westmoreland,	47,500	500			48,000			180	96			12,500	500		10
Ben Franklin Coal Co.																
Metcalf,	Westmoreland,	47,400	600			48,000			282	50			300	250		

Gilpin Coal Co.																
Gilpin,	Armstrong,	47,892	100	.....	.....	47,992	.....	.....	195	78	....	....	13,500	.....	.....	8
Thomas Maher																
Thomas Maher,	Westmoreland,	46,173	.....	.....	.....	46,173	.....	.....	311	37	....	....	3,700	.....	.....	3
Kerr Coal Co.																
Kerr No. 8,	Butler,	44,175	685	1,250	.....	46,110	.....	.....	250	73	....	....	10,000	300	.....	4
Valley Coal Co.																
Valley,	Westmoreland,	45,566	311	.....	.....	45,877	.....	.....	126	61	....	....	9,325	.....	.....	6
Raridan Coal Co.																
Raridan,	Armstrong,	44,888	600	100	.....	45,588	.....	.....	120	84	....	1	9,800	.....	.....	6
Butler Junction Coal Co.																
Butler Junction,	Allegheny,	43,981	200	.....	.....	44,181	.....	.....	285	54	....	....	13,200	500	.....	3
Haddon Coal Co.																
Haddon,	Armstrong,	43,249	100	.....	.....	43,349	.....	.....	192	79	....	....	12,400	.....	.....	7
Bagdad Coal and Coke Co.																
Bagdad,	Armstrong,	42,213	100	.....	.....	42,313	.....	.....	217	74	....	....	12,600	.....	.....	7
Keystone Coal Co.																
Mooween,	Westmoreland,	41,456	600	120	.....	42,176	.....	.....	267	53	....	....	10,500	150	50	.....
Lewis Coal Co.																
Blackstone,	Westmoreland,	37,937	100	50	.....	38,087	.....	.....	219	73	....	....	12,400	100	.....	6
Pine Run Coal and Coke Co.																
Pine Run No. 1,	Westmoreland,	37,397	200	.....	.....	37,597	.....	.....	193	74	....	....	10,500	500	.....	7
Boyd Brothers Coal Co.																
Boyd,	Westmoreland,	35,146	191	.....	.....	35,337	.....	.....	191	32	....	....	9,450	.....	1,175	3
Maher Coal and Coke Co.																
Maher No. 4,	Armstrong,	34,537	.....	.....	.....	34,537	.....	.....	151	58	....	....	7,500	.....	.....	3
West Leechburg Steel and Tin Plate Co.																
West Leechburg,	Westmoreland,	33,525	.....	.....	.....	33,525	.....	.....	311	29	....	....	8,125	.....	.....	2
American Sheet and Tin Plate Co.																
Kirkpatrick,	Armstrong,	30,602	68	.....	.....	30,670	.....	.....	276	37	....	1	5,225	.....	.....	4

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Logansport Coal Co.																
Bethel,	Armstrong,	28,783	1,184	115	.....	30,082	.....	.....	135	51	....	....	.....	.....	.....	7
Hamilton Coal Mining Co.																
Crag Dell,	Westmoreland,	22,642	739	6,100	.....	29,481	.....	.....	222	42	....	....	.....	.....	3,500	3
West Penn Mining Co.																
West Penn,	Westmoreland,	28,605	50	.....	.....	28,655	.....	.....	223	31	....	....	8,500	100	.....	6
Dalliba Coal Co.																
Dalliba,	Westmoreland,	22,685	403	.....	.....	23,088	.....	.....	237	40	....	....	5,200	750	25	6
Provident Coke and Mining Co.																
Provident No. 1,	Armstrong,	16,688	579	78	.....	17,345	.....	**27	70	74	1	....	155	.....	.....	5
Braeburn Steel Co.																
Braeburn,	Westmoreland,	16,555	.....	541	.....	17,096	.....	.....	296	22	....	....	.....	.....	.....	3
Kier Fire Brick Co.																
Kier,	Westmoreland,	13,490	.....	.....	.....	13,490	.....	.....	311	10	....	....	.....	.....	.....	4
Ford Collieries Co.																
Francis,	Allegheny,	2,197	1,400	100	.....	3,697	.....	.....	32	38	....	....	.....	.....	1,500	.....
Benjamin,	Allegheny,	2,124	600	75	.....	2,799	.....	.....	24	36	....	....	.....	.....	1,000	.....
Totals,		4,321	2,000	175	.....	6,496	.....	.....	28	74	....	....	.....	.....	2,500	.....

**Idle.

Superior Fuel Co. Superior No. 1,	Allegheny,	2,515	1,308	2,670	.....	6,493	.....	.....	109	74	....	....	.....	.....	2,350	5
John Peterman John Peterman,	Allegheny,	.....	.....	4,700	.....	4,700	.....	.....	195	10	....	....	.....	.....	.....	1
Vandergrift Coal Co. Vandergrift,	Westmoreland,	134	160	2,369	.....	2,663	.....	.....	264	9	....	....	725	25	.....	2
George E. Boyd, Elizabeth,	Westmoreland,	2,219	.....	.....	.....	2,219	.....	.....	169	7	....	....	750	100	350	.....
Grand totals,		5,441,979	138,164	94,967	1,884	5,676,494	1,095	60	.....	7,106	16	23	561,180	15,628	162,205	392

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pittsburg Gas Coal Co.,	Indiana,			16	4,200	4,200				3	750	2	400	200	2	5
New York and Cleveland Gas Coal Co.,	Allegheny,			2	300	300	1		1	1	490				1	
Allegheny Coal Co.,	Allegheny,			6	900	900									1	2
Bessemer Coal and Coke Co.,	Allegheny,			6	900	900				11	1,350	2	1,400	500	1	2
Saltsburg Coal Co.,	Indiana,			4	600	600			3	5	300	3	300	300	1	1
Cornell Coal Co.,	Allegheny,			1	150	150	1			2	150	1	91	30	2	
Pittsburg Plate Glass Co.,	Allegheny,			1	50	50			7			2	90	25		*
Pennsylvania Salt Manufacturing Co.,	Allegheny,			1	200	200			3	3	650				2	
Cochran Coal Co.,	Westmoreland,			2	300	300			3	3	413				1	
Howard Gas Coal Co.,	Westmoreland,			4	600	600			1	1	250	5	1,600	1,600	1	1
Avonmore Coal and Coke Co.,	Armstrong,			2	240	240				3	600	1	50	50	1	1
Joseph G. Beale and Co.,	Armstrong,			4	440	440						3	360	150		2
McKean Coal Co.,	Allegheny,	1	90	2	125	215				1	125	1	52	20		1
Pine Run Co.,	Westmoreland,			2	300	300			1	1	100	3	300	200	1	1
Graff Coal Co.,	Indiana,			1	150	150			2	1	150				1	
Valley Camp Coal Co.,	Westmoreland,								2			2	150	100		
McFetridge Brothers,	Allegheny,	2	180	2	100	280				3	115	2	200	200		1
Conemaugh Coal Co.,	Indiana,			4	260	260			1	3	100				1	
United States Sewer Pipe Co.,	Armstrong,			2	300	300			2			1	50	50	1	1
Apollo Coal Co.,	Westmoreland,			1	35	35				1	35					
Leechburg Coal and Coke Co.,	Westmoreland,			2	300	300			1			3	150	150	1	1
Mitchell-Watson Coal Co.,	Indiana,			3	450	450			1	2	340				1	1
Lucesco Coal Co.,	Westmoreland,			1	35	35				1	50	1	60	30	1	1

*Power from Salt Works.

Kiskiminetas Coal Co.,	Indiana,			2	300	300			1	1	20	1	30	30	1	
Edri Coal Co.,	Indiana,			1	15	15										
West Penn Coal Mining Co.,	Armstrong,			1	150	150			1	1	150	2	70	70	1	
Paulton Coal Mining Co.,	Westmoreland,			2	400	400						8	300	300		1
Ben Franklin Coal Co.,	Westmoreland,			1	150	150			1	1	150	1	75	50	1	
Kerr Coal Co.,	Butler,	2	300			300			2	1	300	4	40	40	1	
Valley Coal Co.,	Westmoreland,			1	40	40										
Raridan Coal Co.,	Armstrong,			1	150	150				3	145	1	45	40		1
Keystone Coal Co.,	Westmoreland			1	200	200			1	2	170				1	
Lewis Coal Co.,				1	60	60						1	50	50		
Pine Run Coal and Coke Co,				1	60	60				1	150	1	100	100		
Boyd Brothers Coal Co.,				1	80	80				2	142					
Logansport Coal Co.,	Armstrong,	2	160			160				1	160					1
Hamilton Coal Mining Co.,	Westmoreland,			2	300	300			2			1	30	25	2	
Dalliba Coal Co.,	Westmoreland,	1	35			35						1	50	40		1
Provident Coke and Mining Co.	Armstrong,	2	150			150				1	10	3	150	120		2
Braeburn Steel Co.,	Westmoreland,											1	300	250		
Ford Collieries Co.,	Allegheny,			8	1,400	1,400				10	1,200	4	200	100	4	2
Superior Fuel Co.,	Allegheny,			4	600	600				3	120	2	187	187		1
Vandergrift Coal Co.,	Westmoreland,			1	100	100				1	20					
Totals,		10	915	97	14,940	15,855	2		36	73	8,705	62	6,820	5,007	31	30

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburg Gas Coal Co.,	Indiana,	3	3	----	------	33	787	33	19	12	145	------	1,035	1	3	12	19	----	2	198	235	1,270
New York and Cleveland Gas Coal Co.,	Allegheny,	2	3	----	407	------	------	------	30	15	------	63	520	2	2	6	7	----	2	27	46	566
Allegheny Coal Co.,	Allegheny,	1	----	4	47	16	140	16	25	4	25	------	278	1	----	5	10	----	1	28	45	323
Bessemer Coal and Coke Co.,	Allegheny,	1	1	2	40	28	179	28	24	5	35	7	350	1	1	6	9	----	4	29	50	400
Saltsburg Coal Co.,	Indiana,	3	----	----	53	20	200	15	16	9	------	9	325	2	----	3	4	----	1	14	24	349
Cornell Coal Co.,	Allegheny,	1	----	1	3	8	123	8	15	4	10	------	173	1	2	2	3	----	3	14	25	198
Pittsburg Plate Glass Co.,	Allegheny,	1	----	2	11	13	150	13	16	2	21	------	229	1	1	2	2	----	2	13	21	250
Pennsylvania Salt Manufacturing Co.,	Allegheny,	1	----	----	------	7	70	7	6	4	4	1	100	1	----	4	1	1	2	10	19	119
Cochran Coal Co.,	Westmoreland,	1	----	----	------	18	123	18	------	2	3	4	169	1	1	3	4	----	1	9	19	188
Howard Gas Coal Co.,	Westmoreland,	1	----	----	20	15	60	15	8	------	5	------	124	1	----	2	3	----	1	17	24	148
Avonmore Coal and Coke Co.,	Armstrong,	1	----	----	125	------	------	------	8	3	------	3	140	1	----	3	2	----	1	7	14	154
Joseph G. Beale and Co.,	Armstrong,	2	----	----	------	16	60	16	10	------	4	------	108	1	----	2	4	----	----	6	13	121
McKean Coal Co.,	Allegheny,	1	----	1	6	7	46	7	7	2	2	1	80	1	----	2	3	----	1	10	17	97
Pine Run Co.,	Westmoreland,	1	----	----	------	8	48	8	4	1	------	4	74	1	----	1	4	----	1	4	11	85
Graff Coal Co.,	Indiana,	1	1	----	80	------	------	------	4	2	2	------	90	1	----	2	3	----	1	3	10	100
Valley Camp Coal Co.,	Westmoreland,	1	----	1	------	7	49	7	9	2	3	------	79	----	----	2	----	----	1	5	8	87
Allegheny Coal and Coke Co.,	Allegheny,	1	----	----	70	------	------	------	4	------	------	2	77	1	----	1	----	----	1	2	5	82
McFetridge Brothers,	Allegheny,	1	----	1	73	------	------	------	6	------	3	2	86	1	1	1	3	----	1	5	12	98
Conemaugh Coal Co.,	Indiana,	1	----	----	72	------	------	------	5	2	3	------	83	1	----	2	3	----	1	6	13	96
United States Sewer Pipe Co.,	Armstrong,	1	----	1	------	7	55	7	------	------	7	30	108	1	----	3	----	----	2	7	13	121
Apollo Coal Co.,	Westmoreland,	1	----	----	90	------	------	------	10	2	2	------	105	1	----	1	1	----	----	9	12	117
Leechburg Coal and Coke Co.,	Westmoreland,	1	----	1	40	8	48	8	6	3	------	4	119	1	----	3	4	----	1	6	15	134
Mitchell-Watson Coal Co.,	Indiana,	1	----	----	------	11	50	11	3	------	1	------	77	1	1	2	3	----	1	7	15	92
Lucesco Coal Co.,	Westmoreland,	1	----	----	70	------	------	------	7	------	2	2	82	1	----	1	1	----	----	7	10	92

Kiskiminetas Coal Co.,	Indiana,	1				4	33	4	4		4		50			2	2		1	5	10	60
Edri Coal Co.,	Indiana,	1			70				4	2		2	79	1		2			1	5	9	88
West Penn Coal Mining Co.,	Armstrong,	1		1	46					2	10		60	1		2	2			4	9	69
Smith Coal Co.,	Indiana,	1			40				4		2		47	1					1		2	49
Bowman Coal Co.,	Inidana,	1			52				5	1	2		61	1		1				4	6	67
Paulton Coal Mining Co.,	Westmoreland,	1		1	4	14	40	14	7	1		2	84	1		1	4		1	5	12	96
Ben Franklin Coal Co.,	Westmoreland,	1				4	30	4					39	1		1	1			8	11	50
Gilpin Coal Co.,	Armstrong,	1			64				5			1	71	1		1			1	4	7	78
Thomas Maher,	Westmoreland,	1			30				3				34	1					1	1	3	37
Kerr Coal Co.,	Butler,	1	1		8	6	32	6	1	1	3		59	1		2	3		2	6	14	73
Valley Coal Co.,	Westmoreland,	1			50				3				54	1		1	1			4	7	61
Raridan Coal Co.,	Armstrong,	1			4	9	45	9	4	1	2		75			1	3		1	4	9	84
Butler Junction Coal Co.,	Allegheny,	1			40				3			2	46	1		1			1	5	8	54
Haddon Coal Co.,	Armstrong,	1			65				5			1	72	1		1			1	4	7	79
Bagdad Coal and Coke Co.,	Armstrong,	1			58				6			1	66	1		1			1	5	8	74
Keystone Coal Co.,	Westmoreland	1	1			3	29	3		1		6	44			2	2		1	4	9	53
Lewis Coal Co.,	Westmoreland	1			55				6			2	64	1		1	2		1	4	9	73
Pine Run Coal and Coke Co.,	Westmoreland	1			60				4			2	67	1		1			1	4	7	74
Boyd Brothers Coal Co.,	Westmoreland	1			18				4	1	2		26	1			2			3	6	32
Maher Coal and Coke Co.,	Armstrong,	1			50				3				54	1		1				2	4	58
West Leechburg Steel and Tin Plate Co.,	Westmoreland,	1			26				2				29									29
American Sheet and Tin Plate Co.,	Armstrong,	1			30				4				35	1		1					2	37
Logansport Coal Co.,	Armstrong,	1				5	27	5	5		2		45				1			5	6	51
Hamilton Coal Mining Co.,	Westmoreland,	1		1		2	22	2	5		1		34	1		2	2		1	2	8	42
West Penn Mining Co.,	Westmoreland,	1			20				3	1		1	26	1		1			1	2	5	31
Dalliba Coal Co.,	Westmoreland,	1			28				4	1	1		35	1		1	1			2	5	40
Provident Coke and Mining Co.,	Armstrong,	1				10	34	9	4			4	62	1		2	2		1	6	12	74
Braeburn Steel Co.,	Westmoreland,	1			16				3		1		21	1							1	22
Kier Fire Brick Co.,	Westmoreland,	1			7				1				9							1	1	10
Ford Collieries Co.,	Allegheny,	2		2		4	20	4				12	44		2	4	8			16	30	74
Superior Fuel Co.,	Allegheny,	1		1		4	32	4	2		4		48	1		1	4			20	26	74
John Peterman,	Allegheny,	1			8				1				10									10
Vandergrift Coal Co.,	Westmoreland,	1			5				1				7	1			1				2	9
George E. Boyd,	Westmoreland,	1			5								6	1							1	7
Totals,		65	10	20	2,066	287	2,532	281	348	86	311	168	6,174	51	14	105	134	1	49	578	932	7,106

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburg Gas Coal Co.,	Indiana,	24	23	26	25	25	26	26	25	26	26	25	25	302
New York and Cleveland Gas Coal Co.,	Allegheny,	18	20	21	14	18	25	25	25	25	21	22	23	258
Allegheny Coal Co.,	Allegheny,	18	17	20	15	17	15	19	21	20	24	23	23	232
Bessemer Coal and Coke Co.,	Allegheny,	12	11	18	21	24	25	9	24	25	26	25	26	246
Saltsburg Coal Co.,	Indiana,	12	12	17	9	6	9	12	10	23	19	22	16	167
Cornell Coal Co.,	Allegheny,	24	23	25	21	18	16	18	18	18	22	22	25	252
Pittsburg Plate Glass Co.,	Allegheny,	12	12	19	17	22	13	13	16	16	17	25	26	208
Pennsylvania Salt Manufacturing Co.,	Allegheny,	25	23	25	25	25	26	25	24	24	25	24	25	296
Cochran Coal Co.,	Westmoreland,	20	13	19	12	11	11	14	20	23	26	26	25	220
Howard Gas Coal Co.,	Westmoreland,	23	20	22	16	15	21	24	22	22	24	12	22	243
Avonmore Coal and Coke Co.,	Armstrong,	18	16	20	20	18	19	20	18	24	25	25	26	249
Joseph G. Beale and Co.,	Armstrong,	16	16	17	15	16	17	17	20	22	24	24	24	228
McKean Coal Co.,	Allegheny,	25	23	24	20	21	18	24	23	22	23	24	23	270
Pine Run Co.,	Westmoreland,	18	17	20	20	16	16	18	19	22	23	24	24	237
Graff Coal Co.,	Indiana,	21	20	26	24	16	16	20	21	24	21	22	23	254
Valley Camp Coal Co.,	Westmoreland,	20	17	27	25	21	15	16	11	24	25	21	20	242
Allegheny Coal and Coke Co.,	Allegheny,	21	22	22	23	22	24	23	21	21	22	23	21	265
McFetridge Brothers,	Allegheny,	16	18	7	11	15	7	11	15	14	11	19	22	166
Conemaugh Coal Co.,	Indiana,	20	18	20	14	14	14	18	19	22	21	23	22	225
United States Sewer Pipe Co.,	Armstrong,	24	22	22	19	18	23	26	25	26	26	24	25	280
Apollo Coal Co.,	Westmoreland,	16	14	20	11	9	11	14	13	24	21	23	26	202
Leechburg Coal and Coke Co.,	Westmoreland,	17	16	24	12	14	12	15	16	18	20	23	24	211
Mitchell-Watson Coal Co.,	Indiana,	22	17	22	12	7	10	16	19	20	24	26	26	221
Lucesco Coal Co.,	Westmoreland,	23	21	25	20	16	19	22	21	22	25	25	25	264
Kiskiminetas Coal Co.,	Indiana,	22	21	24	13	13	21	22	20	22	10	20	21	229
Edri Coal Co.,	Indiana,	13	14	18	10	8	8	12	11	22	20	23	26	185
West Penn Coal Mining Co.,	Armstrong,	19	11	16	15	15	20	22	24	26	25	22	23	238
Smith Coal Co.,	Indiana,	21	18	24	21	16	16	21	18	17	23	22	25	242
Bowman Coal Co.,	Indiana,	18	15	25	13	9	11	15	16	17	24	25	25	213
Paulton Coal Co.,	Westmoreland,	14	15	16	12	8	10	11	12	20	21	23	18	180
Ben Franklin Coal Co.,	Westmoreland,	24	23	24	24	24	23	24	23	24	24	23	22	282
Gilpin Coal Co.,	Armstrong,	17	18	21	14	14	10	14	14	15	16	20	22	195
Thomas Maher,	Westmoreland,	26	24	27	26	26	26	26	26	26	26	26	26	311
Kerr Coal Co.,	Butler,	21	20	22	18	18	18	20	21	23	24	23	22	250

Raridan Coal Co.,	Armstrong,	5	5	5	4	4	5	4	4	16	18	25	25	120
Valley Coal Co.,	Westmoreland,	12	14	14	7	5	6	9	9	9	11	15	15	126
Butler Junction Coal Co.,	Allegheny,	20	22	23	24	25	24	25	24	24	25	24	25	285
Haddon Coal Co.,	Armstrong,	16	17	20	13	13	12	12	13	15	17	21	23	192
Bagdad Coal and Coke Co.,	Armstrong,	16	17	22	16	15	15	16	16	18	20	22	24	217
Keystone Coal Co.,	Westmoreland,	26	23	25	17	17	21	24	24	23	18	24	25	267
Lewis Coal Co.,	Westmoreland,	16	17	23	15	16	13	14	15	20	21	24	25	219
Pine Run Coal and Coke Co.,	Westmoreland,	16	18	22	10	8	10	12	14	16	20	22	25	193
Boyd Brothers Coal Co.,	Westmoreland,	19	19	22	20	14	14	11	11	14	12	17	18	191
Maher Coal and Coke Co.,	Armstrong,	10	9	12	9	7	8	9	9	11	18	24	25	151
West Leechburg Steel and Tin Plate Co.,	Westmoreland,	26	24	27	26	26	26	26	26	26	26	26	26	311
American Sheet and Tin Plate Co.,	Armstrong,	26	------	27	26	14	25	27	26	26	26	26	27	276
Logansport Coal Co.,	Armstrong,	12	9	16	8	4	9	7	8	9	8	22	23	135
Hamilton Coal Mining Co.,	Westmoreland,	19	19	20	20	20	21	22	17	18	15	14	17	222
West Penn Mining Co.,	Westmoreland,	18	16	24	16	16	14	16	17	20	21	22	23	223
Dalliba Coal Co.,	Westmoreland,	24	24	26	26	16	14	12	18	16	17	19	25	237
Provident Coke and Mining Co.,	Armstrong,	26	23	15	6	------	------	------	------	------	------	------	------	70
Braeburn Steel Co.,	Westmoreland,	25	23	24	20	24	24	26	26	26	26	26	26	296
Kier Fire Brick Co.,	Westmoreland,	26	24	27	26	26	26	27	26	25	26	26	26	311
Ford Collieries Co.,	Allegheny,	------	------	------	------	------	------	------	------	------	------	4	24	28
Superior Fuel Co.,	Allegheny,	------	------	------	------	------	------	------	14	26	26	26	17	109
John Peterman,	Allegheny,	25	20	25	15	10	10	15	10	10	10	20	25	195
Vandergrift Coal Co.,	Westmoreland,	23	22	24	21	22	20	20	21	21	22	24	24	264
George E. Boyd,	Westmoreland,	15	16	19	14	14	13	10	10	12	14	18	14	169

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	25	Frank Ursinsky,	Polish,	Loader,	39	M	1	1	Provident No. 1	Armstrong,	Instantly killed by fall of slate at face of his room.
Feb.	17	Jack Rostoch,	Slavonian,	Driver,	17	S			Valley Camp,	Westmoreland,	Killed by being run over by a loaded car. He was driving up grade and at No. 2 room fell off in front of trip.
	22	James Ford,	American,	Driver,	23	S			Plum Creek,	Allegheny,	Instantly killed by mine car on haulage road while riding on front end of trip.
March	26	Mike Yezeneski,	Polish,	Loader,	36	M	1		Cochran No. 1,	Westmoreland,	Instantly killed by fall of slate at face of his room.
April	20	Louis Burlando,	Italian,	Miner,	35	S			Northwest,	Westmoreland,	Instantly killed by fall of coal from side of entry where he was undermining the coal.
May	6	Anton Brunner,	American,	Motorman,	27	M	1	1	Plum Creek,	Allegheny,	Instantly killed by electric motor running over him. Outside.
	15	Mike Yanolevitch,	Polish,	Loader,	49	M	1	5	Bessemer No. 1,	Allegheny,	Instantly killed by fall of roof on pillar work while undermining.
	26	Frank Lalstins,	Italian,	Miner,	33	M	1	3	West Penn No. 1,	Armstrong,	Instantly killed by fall of slate at face of his room.
June	9	George Mikes,	Polish,	Miner,	25	S			Iselin No. 1,	Indiana,	Killed by fall of slate while shoveling at face of room.
	14	Steve Koskie,	Slavonian,	Miner,	40	S			Iselin No. 2,	Indiana,	Killed by fall of slate at face of heading.
Aug.	24	Guy Richard,	American,	Machine helper.	20	S			Natrona No. 1,	Allegheny,	Instantly killed by electricity. While laying machine cable it broke in his hands. He was shocked and fell on steel rail and the cable fell across him.
	31	William J. Seibert,	American,	Miner,	56	M	1		Cornell,	Allegheny,	Fatally injured by fall of slate while working on grading slope. He received scalp wounds and bruises on body. Died six weeks later.
Nov.	12	Vick Peranich,	Hungarian,	Miner,	35	M	1	1	Harwick,	Allegheny,	Instantly killed by fall of roof rock while standing against face of rib.

Dec.	14	John Skibinsky,	Polish,	Driver,	30	S			Bessemer No. 1,	Allegheny,	Fatally injured by car. He was going down grade on main entry with his trip and in some unknown manner was run over. Died four hours later
	15	Atsevo Meranga,	Italian,	Laborer,	33	M	1	2	Cochran No. 1,	Westmoreland,	Fatally injured by being caught between car and rib. He died on the way out of the mine.
	30	Benjamin La Veda,	Italian,	Snapper,	20	S			Johnetta No. 2,	Armstrong,	Fatally injured. He fell from front end of trip on first right face off main entry and was crushed across the chest by car. Died a few hours later.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 11	Charlie Vanoski,	Polish,	Driver,	17	S	Bessemer No. 1,	Allegheny,	Leg broken by mine car. The car broke loose from another trip, ran down entry and struck him.
16	Steve Woconski,	Polish,	Loader,	26	S	Harwick,	Allegheny,	Both legs broken by fall of slate at face of room.
17	Jno. Casagranda,	Italian,	Machine scraper,,	20	S	Karidan,	Armstrong,	Leg broken by fall of slate while lifting a loaded car on track in his room.
March 8	John Barnes,	English,	Motorman,	40	M	Valley Camp,	Westmoreland,	Leg broken by running into an empty car standing in entry, with his trip.
June 18	Ben Tarari,	Italian,	Miner,	32	M	Foster No. 2,	Indiana,	Leg broken by fall of slate in his room while preparing a post to set under the slate.
July 20	Joe Nosence,	Italian,	Miner,	19	S	Lucesco,	Westmoreland,	Leg broken by fall of slate while loading car at face of his room.
26	Lee Smith,	Polish,	Driver,	21	S	Cornell,	Allegheny,	Ankle bone broken by a car becoming derailed while taking a trip up the entry.
28	Valentine Coanage,	Slavonian,	Loader,	37	M	Harwick,	Allegheny,	Leg broken in two places. While walking on dilly road he was struck by front car of a moving trip.
Aug. 7	Martin Peterson,	Swedish,	Miner,	25	S	Johnetta No. 2,	Armstrong,	Leg broken. A car jumped the track in No. 34 room on No. 3 entry, slued round and caught his leg under the bumper.
21	Frank Wagner,	American,	Helper,	19	S	Valley Camp,	Westmoreland,	Leg broken by being caught between a loaded and an empty trip of cars on the siding.
Sept. 10	John Ferrance,	Slavonian,	Loader,	30	M	Creighton,	Allegheny,	Burned on face and hands by a blown-out shot. He secretly carried dynamite into the mine.
Oct. 21	John Dopeke,	Slavonian,	Miner,	25	S	Mt. Gray,	Westmoreland,	Leg broken by fall of slate at face of his room.

Nov.	2	George Grunden,	American,	Miner,	42	M	Avenue,	Allegheny,	Leg broken while switching a car into the siding, his head touched an electric wire and he was thrown with such force as to break his leg.
	4	Joe Willoniski,	Polish,	Miner,	26	S	Iselin No. 1,	Indiana,	Both legs broken by fall of slate from the face of his room.
	5	George Lugzey,	Slavonian,	Loader,	45	M	Creighton,	Allegheny,	Rib broken by a fall of roof coal while loading a car at the face of his room.
	9	A. R. Caldwell,	Scotch,	Miner,	43	M	Kirkpatrick,	Armstrong,	Face and hands burned by the explosion of three pound can of powder. While stooping to take a drink out of dinner pail a spark from lamp on his cap ignited the powder.
	15	Steve Schriner,	German,	Loader,	20	S	Peterson,	Allegheny,	Leg broken. Struck by a sprag in a passing car as he stepped off track to let car pass into the room.
	16	Joe Turner,	Hungarian,	Driver,	20	S	Harwick,	Allegheny,	Crushed across thighs. Caught between car and rib as he jumped off the loaded trip, on third left main, to run ahead to hurry the mule.
Dec.	3	Pat Antinoch,	Italian,	Roadman,	27	M	Foster No. 2,	Indiana,	Leg broken by fall of slate while emptying a car of ashes on entry side track.
	7	Joe Gates,	Slavonian,	Driver,	25	M	Valley Camp,	Westmoreland,	Collar bone and four ribs broken. He jumped off car on narrow side to pull out sprag and was caught between car and rib.
	9	M. C. Cunrad,	American,	Loader,	20	S	Mt. Gray,	Westmoreland,	Leg broken by fall of slate in his room.
	17	John Dubeck,	German,	Loader,	30	M	Creighton,	Allegheny,	Squeezed about the body. Caught between car and rib.
	28	Martin Valch,	Slavonian,	Snapper,	27	M	Creighton,	Allegheny,	Arm broken. He jumped from front end of motor and when the motor took the frog on main haulage road he fell with his arm across the rail, and motor passed over it.

CONDITION OF MINES

PITTSBURG GAS COAL COMPANY

Iselin Nos. 1, 2 and 3.—General conditions good.

NEW YORK AND CLEVELAND GAS COAL COMPANY

Plum Creek and Sandy Creek.—In good sanitary condition.

ALLEGHENY COAL COMPANY

Harwick.—Ventilation, drainage and general conditions good.

BESSEMER COAL AND COKE COMPANY

Bessemer No. 1.—In very good condition.

SALTSBURG COAL COMPANY

Foster Nos. 1, 2 and 3.—In good condition.

CORNELL COAL COMPANY

Cornell.—In fairly good condition. The ventilation will be much improved when the mine is connected with the shaft already down and another opening made to the surface.

PITTSBURG PLATE GLASS COMPANY

Creighton.—General conditions good.

PENNSYLVANIA SALT MANUFACTURING COMPANY

Natrona No. 1.—In excellent condition.

COCHRAN COAL COMPANY

Cochran No. 1.—Condition fair.

HOWARD GAS COAL COMPANY

Mt. Gray.—In excellent condition.

AVONMORE COAL AND COKE COMPANY

Avonmore.—In fair condition.

JOSEPH G. BEALE AND COMPANY

Beale.—General conditions fair.
Aladdin.—Ventilation a little sluggish at the working face. Drainage good.

McKEAN COAL COMPANY

Peterson.—In very good condition.

PINE RUN COMPANY

Lewis.—In good condition.

GRAFF COAL COMPANY

Black Lick.—In very good condition.

VALLEY CAMP COAL COMPANY

Valley Camp.—Ventilation sluggish at the working faces on my last visit. The fan that was installed about a year ago is not doing efficient work on account of its location. The greater part of the air is lost in passing through old workings before it reaches the working faces. Recommended a shaft near the face of workings.

ALLEGHENY COAL AND COKE COMPANY

Avenue.—In good condition.

McFETRIDGE BROTHERS

Hite.—In very good condition.

CONEMAUGH COAL COMPANY

Conemaugh.—Ventilation and drainage good.

UNITED STATES SEWER PIPE COMPANY

Johnetta No. 2.—Condition fair. A large fan has been installed, which, when put in operation, will produce ample ventilation and put the mine in good condition.

APOLLO COAL COMPANY

Northwest.—Condition fair.

LEECHBURG COAL AND COKE COMPANY

Riverview and Hill.—Condition fair. Both mines ventilated by the same fan.

MITCHELL-WATSON COAL COMPANY

Mitchell-Watson.—In very good condition.

LUCESCO COAL COMPANY

Lucesco.—Ventilation, drainage and general conditions good.

KISKIMINETAS COAL COMPANY

Tunnelton.—In fair condition.

EDRI COAL COMPANY

Edri.—In good condition.

WEST PENN COAL MINING COMPANY

West Penn No. 1.—In fair condition.

SMITH COAL COMPANY

Smith.—In good condition.

BOWMAN COAL COMPANY

Bowman.—In very good condition.

PAULTON COAL MINING COMPANY

Paulton.—In good condition.

BEN FRANKLIN COAL COMPANY

Metcalf.—Ventilation a little sluggish at the working faces on my last visit.

GILPIN COAL COMPANY

Gilpin.—In very good condition.

THOMAS MAHER

Thomas Maher.—In good condition.

KERR COAL COMPANY

Kerr No. 8.—In very good condition.

VALLEY COAL COMPANY

Valley.—In fair condition.

RARIDAN COAL COMPANY

Raridan.—In good condition.

BUTLER JUNCTION COAL COMPANY

Butler Junction.—In good condition.

HADDON COAL COMPANY

Haddon.—In satisfactory condition.

BAGDAD COAL AND COKE COMPANY

Bagdad.—In good sanitary condition.

KEYSTONE COAL COMPANY

Mooween.—Ventilation sluggish at the working faces. The fan is too small.

LEWIS COAL COMPANY

Blackstone.—In satisfactory condition.

PINE RUN COAL AND COKE COMPANY

Pine Run No. 1.—In fairly good condition.
Pine Run No. 2.—Idle.

BOYD BROTHERS COAL COMPANY

Boyd.—In good condition.

MAHER COAL AND COKE COMPANY

Maher No. 4.—In good condition.

WEST LEECHBURG STEEL AND TIN PLATE COMPANY

West Leechburg.—In very good condition.

AMERICAN SHEET AND TIN PLATE COMPANY

Kirkpatrick.—In good condition.

LOGANSPORT COAL COMPANY

Bethel.—In fair condition.

HAMILTON COAL MINING COMPANY

Crag Dell.—Condition not satisfactory. There is no system in this mine.

WEST PENN MINING COMPANY

West Penn.—In good condition.

DALLIBA COAL COMPANY

Dalliba.—Condition fair. Have just installed a new Brazil fan, diameter 12 feet.

PROVIDENT COKE AND MINING COMPANY

Provident No. 1.—Idle since July 1.

BRAEBURN STEEL COMPANY

Braeburn.—In very good condition.

KIER FIRE BRICK COMPANY

Kier.—In good condition. Not under the law.

FORD COLLIERIES COMPANY

Benjamin and Francis.—Two new shafts, 10 x 16 feet and about 200 feet deep, just down to the coal. Condition good.

SUPERIOR FUEL COMPANY

Superior No. 1.—A new shaft, 9 x 21 feet and about 200 feet deep, just down to the coal. Condition good.

JOHN PETERMAN

John Peterman.—A custom mine in good condition.

VANDERGRIFT COAL COMPANY

Vandergrift.—In good condition.

GEORGE E. BOYD

Elizabeth.—In good condition.

IMPROVEMENTS

BESSEMER COAL AND COKE COMPANY

Bessemer No. 1.—Conveying apparatus and fueling station for Bessemer and Lake Erie Railroad at an approximate cost of $10,000. Installed electric light plant, cost $2,500; and Parsens hot blast blowing system for six 150 horse-power boilers, cost $2,500; also one new 12 x 16 inch double drum haulage engine with 3000 feet of extension rope haulage, one new 12 x 16 inch Worthington duplex pump, cost $1,000; and 22 houses with electric light.

CORNELL COAL COMPANY

Cornell.—Grade on slope has been improved by taking down about 1,000 feet of roof and reducing the grade. Replaced all bare wires with rubber covered and insulated cable and wire in the mine, as a guard against danger and accidents. Improved the traveling way nearly the entire length. Built a new machine shop, and displaced the steam engine at the elevator with 20 horse-power Westinghouse motor.

PITTSBURG PLATE GLASS COMPANY

Creighton.—Extended 70 pound iron along main haulage road to C face entry, a distance of 6,800 feet from tipple. Installed one electric pump; purchased one 10-ton Jeffrey electric locomotive and installed a complete outfit of Draeger's rescue apparatus, including: (a) three smoke helmets with duplex cylinders; (b) one Draeger high pressure refilling pump; (c) two oxygen storage cylinders; capacity, 100 cubic feet each; (d) three electric miners' safety lamps.

In connection with this apparatus they contemplate organizing rescue parties. An entry (entirely separate from the mine) will be made and actual practice of rescue work will be carried on by the rescue party in this entry. Purchased two chemical fire engines, 60-gallon tanks.

PENNSYLVANIA SALT MANUFACTURING COMPANY

Natrona No. 1.—Installed Sullivan long wall mining machine.

HOWARD GAS COAL COMPANY

Mt. Gray.—Installed a telephone system in the mine, an electric haulage, automatic doors; all compressed air lines suspended from the roof; endless rope haulage and arc lights in and about the buildings.

McKEAN COAL COMPANY

Peterson.—Extended the side track 800 feet. A permissible explosive is used exclusively.

VALLEY CAMP COAL COMPANY

Valley Camp.—Installed a Jeffrey fan, 8 feet, driven by a 50 horse-power electric motor. Built a brick building for fan and motor, a new haulage road 1,700 feet long, twenty-four concrete stoppings and twenty-seven stoppings faced with cement. The tipple has been rebuilt and siding extended 600 feet.

UNITED STATES SEWER PIPE COMPANY

Johnetta No. 2.—Installed a large fan—Pittsburg Stoker—diameter, 10 feet.

APOLLO COAL COMPANY

Northwest.—Grades and drainage improved.

LEECHBURG COAL AND COKE COMPANY

Hill and Riverview.—Installed motor haulage and electric mining machines.

MITCHELL-WATSON COAL COMPANY

Mitchell-Watson.—Built a large brick motor house.

KISKIMINETAS COAL COMPANY

Tunnelton.—Installed motor haulage.

WEST PENN COAL MINING COMPANY

West Penn No. 1.—Traveling way improved; main entries cleaned along sides; loose roof taken down and airway cleaned up.

KERR COAL COMPANY

Kerr No. 8.—Installed a new fan, electric haulage and electric mining machine.

DALLIBA COAL COMPANY

Dalliba.—Installed a Brazil fan, diameter 12 feet.

BRAEBURN STEEL COMPANY

Braeburn.—Installed an electric pump.

FORD COLLIERIES COMPANY

Francis and Benjamin.—The erection of these plants began last April. The hoist shafts and slopes were sunk and manways driven and tipples and many outside buildings have been erected. These shafts have all modern improvements. Shafts, 10 x 16 feet; slopes, 6 x 16, and air shafts, 10 x 10 feet.

SUPERIOR FUEL COMPANY

Superior No. 1.—A new shaft down to the coal under development. They have all modern improvements. Hoisting shaft, 9 x 21 feet, and air shaft, 9 x 18 feet, about 200 feet deep.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

In January, information was made against Staney Jacat, Joseph Waleski and W. Baeden, miners, employed by Bessemer Coal and Coke Company at Bessemer mine, in which locked safety lamps are used exclusively, charging them with the violation of Article 21, section 1 of the mining law, in carrying matches and smoking articles into the mine. The men spent about three weeks in Allegheny county jail. They were tried at No. 70 January term of court. The jury returned a verdict of guilty against Staney Jacat and he was sentenced to thirty days in the workhouse.

December 2, information was made against Joseph Marco and Peter Listello, before Justice of the Peace McMasters for violation of Article 20, Rules 4 and 14. Joseph Marco waived a hearing and carried the case to Allegheny county court. Peter Listello is a fugitive from justice.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in Morehead Hall, Pittsburg, April 6, 7, 8 and 9. The Board of Examiners was com-

posed of F. W. Cunningham, Mine Inspector; E. A. Watters, Superintendent, and Alexander McCanch, Sr., Mine Foreman. There were thirty-eight applicants examined, twenty-three for certificates as Mine Foremen and fifteen for certificates as Fire Bosses.

The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

J. E. Milson, Clyde E. Balliet, John W. Donaldson, J. C. Williams and John Ferrell.

FIFTEENTH DISTRICT

CAMBRIA, INDIANA AND CLEARFIELD COUNTIES

Patton, Pa., February 24, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mining Laws, I have the honor to transmit herewith my annual report of the Fifteenth Bituminous District for the year ending December 31, 1909.

Respectfully submitted,

ALEXANDER MONTEITH,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	112
Number of mines in operation,	105
Number of tons of coal shipped to market,	6,788,075
Number of tons used at mines for steam and heat,	151,049
Number of tons sold to local trade and used by employes,	48,515
Number of tons used in the manufacture of coke,	285,348
Number of tons of coal produced,	7,272,987
Number of tons of coke produced,	182,878
Number of coke ovens,	482
Number of coke ovens in operation,	482
Number of tons of coal produced by pick mining,	5,139,788
Number of tons produced by compressed air machines,	1,680,962
Number of tons produced by electrical machines,	452,237
Number of persons employed inside of mines,	10,348
Number of persons employed outside, including coke workers,	998
Number of persons employed at manufacture of coke,	139
Number of fatal accidents inside of mines,	20
Number of fatal accidents outside,	———
Number of non-fatal accidents inside of mines,	37
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	363,649
Number of persons employed per fatal accident inside,	517
Number of persons employed per fatal accident outside,	———
Number of persons employed per non-fatal accident inside,	280
Number of persons employed per non-fatal accident outside,	499
Number of wives made widows,	13
Number of children made orphans,	27
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	———
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside	———
Number of electric motors used inside,	90
Number of electric motors used outside,	———
Number of fans in use,	69
Number of furnaces in use,	32
Number of gaseous mines in operation,	3
Number of non-gaseous mines in operation,	102
Number of new mines opened,	———
Number of old mines abandoned,	4
Number of mines idle during the year,	7

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pennsylvania Coal and Coke Company (T. H. Watkins, Receiver),	1,528,980
Penn Mary Coal Company,	888,059
Russell Coal Company,	454,922
Barnes and Tucker,	426,420
Carrolltown Coal Company,	379,618
Empire Coal Mining Company,	337,873
Clearfield Bituminous Coal Corporation,	336,955
Greenwich Coal and Coke Company,	329,184
Sterling Coal Company,	303,455
Madeira-Hill Coal Mining Company,	302,664
Peale, Peacock and Kerr, Incorporated,	275,228
Dixon Coal Company,	226,287
Cherry Tree Coal Company,	171,315
Duncan and Spangler Coal Company,	167,758
Cymbria Coal Company,	165,420
Hines Coal Company,	130,314
Allport Coal Company,	119,462
Oak Ridge Coal and Coke Company,	93,020
Nant Y Glo Coal Mining Company,	83,726
Rich Hill Coal Company,	81,536
Woodland Coal and Coke Company,	58,650
Potts Run Land Company,	55,999
Logan Coal Company,	55,369
Peerless Coal Mining Company,	49,849
Hastings Coal and Coke Company,	39,322
Clearfield and Cambria Coal and Coke Company,	29,760
Olanta Coal Mining Company,	26,084
Randolph and Dixonville Coal Company,	23,801
Morrisdale Coal Mining Company,	23,408
Patton Clay Manufacturing Company,	20,068
Miller Run Coal Company,	18,695
Reed Colliery Company,	15,490
Red Top Coal Company,	14,585
Little Creek Coal and Coke Company,	12,014
Victor Coal Company,	9,885
M. J. Kelly and Company, Incorporated,	8,404
Cheston Coal Company,	6,625
Mosier and Jose,	1,607
Bellmore Coal Company,	1,176
Total,	7,272,987

Production by Counties

Cambria,	4,440,347
Indiana,	2,354,656
Clearfield,	477,984
Total,	7,272,987

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	6		6	5		5	254,830	305,796	2,366	327	2,693	394		473	
Penn Mary Coal Co.,	2		2	8	2	10	444,029	111,007	765	48	813	382		96	24
Russell Coal Co.,	1		1				454,922		595	59	654	595			
Barnes and Tucker,	2		2	1		1	213,210	426,420	472	36	508	236		472	
Carrolltown Coal Co.,	1		1	2		2	379,618	189,809	870	60	930	870		435	
Empire Coal Mining Co.,	1		1				337,873		496	39	535	496			
Clearfield Bituminous Coal Corporation,	1		1	5		5	336,955	67,391	555	51	606	555		111	
Greenwich Coal and Coke Co.,	1		1	1		1	329,184	329,184	436	48	484	436		436	
Madeira-Hill Coal Mining Co.,	2		2	1		1	151,332	302,664	389	27	416	195		389	
Peale, Peacock and Kerr, Incorporated,				6		6		45,871	368	26	394			61	
Dixon Coal Co.,				2		2		113,143	288	15	303			144	
Cherry Tree Coal Co.,	1		1				171,315		213	18	231	213			
Duncan and Spangler Coal Co.,				2		2		83,879	209	23	232			104	
Hines Coal Co.,				2		2		65,157	230	16	246			115	
Rich Hill Coal Co.,				1		1		81,536	126	8	134			126	
Olanta Coal Mining Co.,	2		2				13,042		50	3	53	25			
Reed Colliery Co.,				1		1		15,490	48	5	53			48	
Miscellaneous Companies,									1,872	189	2,061				
Totals and averages for district,	20		20	37	2	39	363,649	196,567	10,348	998	11,346	517		280	499

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	1	----	----	----	2	----	1	----	4	20.00
Falls of slate,	1	----	----	----	----	----	1	----	----	----	----	----	2	10.00
Falls of roof,	1	----	1	2	1	1	1	----	2	1	----	1	11	55.00
Mine cars,	----	1	----	----	----	----	----	----	----	----	----	----	1	5.00
Explosions of powder and dynamite,	1	----	----	----	----	----	----	----	----	----	----	1	2	10.00
Totals,	3	1	1	2	2	1	2	----	4	1	1	2	20	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	1	1	1	----	----	1	----	----	1	1	2	9	24.33
Falls of slate,	1	----	----	----	----	----	----	----	----	----	----	----	1	2.70
Falls of roof,	2	----	1	----	----	1	1	----	----	1	----	1	7	18.92
Mine cars,	----	1	----	3	2	3	----	----	----	2	2	3	16	43.24
Blasts, premature and otherwise,	----	1	----	----	----	----	----	----	----	----	----	----	1	2.70
Miscellaneous,	----	----	1	----	----	----	----	----	----	----	1	1	3	8.11
Totals,	4	3	3	4	2	4	2	----	----	4	4	7	37	100.00
Causes of Accidents Outside														
Cars,	1	----	1	----	----	----	----	----	----	----	----	----	2	100.00
Totals.	1	----	1	----	----	----	----	----	----	----	----	----	2	100.00
Grand totals inside and outside,	5	3	4	4	2	4	2	----	----	4	4	7	39	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	----	1	2	2	1	2	----	3	----	1	2	17
Machine loaders,	----	----	----	----	----	----	----	----	----	1	----	----	1
Machine scrapers,	----	----	----	----	----	----	----	----	1	----	----	----	1
Drivers and runners,	----	1	----	----	----	----	----	----	----	----	----	----	1
Totals,	3	1	1	2	2	1	2	----	4	1	1	2	20
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	3	2	3	4	----	3	2	----	----	3	2	5	27
Machine loaders,	1	----	----	----	----	----	----	----	----	----	----	----	1
Drivers and runners,	----	----	----	----	2	----	----	----	----	1	1	1	5
Doorboys and helpers,	----	----	----	----	----	----	----	----	----	----	1	1	2
Company men,	----	1	----	----	----	1	----	----	----	----	----	----	2
Totals,	4	3	3	4	2	4	2	----	----	4	4	7	37
Outside													
Doorboys,	1	----	----	----	----	----	----	----	----	----	----	----	1
Oilers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	1	----	1	----	----	----	----	----	----	----	----	----	2
Grand totals inside and outside,	5	3	4	4	2	4	2	----	----	4	4	7	39

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	1	----	1	1	----	----	----	----	----	----	----	3
English,	----	----	1	----	----	----	----	----	----	----	----	----	1
Scotch,	1	----	----	----	----	----	----	----	----	----	----	----	1
German,	----	----	----	1	----	----	----	----	----	----	----	----	1
Polish,	1	----	----	----	----	----	----	----	----	----	----	1	2
Hungarian,	1	----	----	----	----	----	----	----	1	----	1	1	4
Italian,	----	----	----	----	1	----	1	----	----	1	----	----	3
Slavonian,	----	----	----	----	----	1	----	----	2	----	----	----	3
Austrian,	----	----	----	----	----	----	1	----	1	----	----	----	2
Totals,	3	1	1	2	2	1	2	----	4	1	1	2	20

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	2	2	2	1	----	----	----	----	3	3	14
English,	----	----	----	----	----	----	----	----	----	1	----	----	1
Welsh,	----	1	----	----	----	----	----	----	----	----	----	----	1
Scotch,	----	----	----	1	----	2	----	----	----	1	1	----	5
Irish,	----	----	----	1	----	----	----	----	----	----	----	----	1
Polish,	1	1	----	----	----	1	1	----	----	----	----	----	4
Hungarian,	----	----	1	----	----	----	----	----	----	----	----	1	2
Italian,	1	----	----	----	----	----	1	----	----	1	----	2	5
Slavonian,	----	----	----	----	----	----	----	----	----	1	----	----	1
Austrian,	1	----	1	----	----	----	----	----	----	----	----	1	3
Russian,	----	1	----	----	----	----	----	----	----	----	----	----	1
Greek,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	5	3	4	4	2	4	2	----	----	4	4	7	39

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)																
Pennsylvania No. 11,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Electricity,		1	22,000	13,000	22,000	95
Pennsylvania No. 12,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Electricity,		2	16,000	12,500	16,000	106
Pennsylvania No. 13,	Slope,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Electricity,		1	26,000	10,000	26,000	72
Pennsylvania No. 20,	Slope,	Non-gas.,	Fan,	12	2.5	5	200	.85	Stine,	Steam,		2	40,000	20,000	40,000	154
Pennsylvania No. 21,	Drift,	Non-gas.,	Fan,	12	3.5	4	150	1	Stine,	Steam,		2	21,000	15,000	22,000	155
Pennsylvania No. 22,	Drift,	Non-gas.,	Fan,	12	5	4.5	100	1.5	Stine,	Steam,		2	60,000	22,000	60,000	205
Pennsylvania No. 25,	Drift,	Non-gas.,	Fan,	7	1.5	3	200	.5	Stine,	Steam,		2	20,700	12,000	21,000	125
Pennsylvania No. 26,	Drift,	Non-gas.,	Fan,	10	3.3	3	70	.4	Brazil,	Steam,		1	7,600	5,000	7,600	44
Pennsylvania No. 27,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Steam,		2	32,000	20,000	32,000	194
Pennsylvania No. 29,	Slope,	Non-gas.,	Fan,	10	2.5	5	200	.9	Stine,	Steam,		3	52,000	22,000	52,000	202
Pennsylvania No. 28,	Slope,	Non-gas.,	Fan,	12	5	4.5	130	1.5	Stine,	Steam,		3	60,000	45,000	65,000	244
Pennsylvania No. 30,	Drift,	Non-gas.,	Fan,	12	4.5	4.5	150	1	Robinson,	Steam,		5	47,600	34,540	48,000	254
Pennsylvania No. 31,	Drift,	Non-gas.,	Furnace,								16	1	8,000	4,400	8,000	
Pennsylvania No. 32,	Drift,	Non-gas.,	Furnace,								20	1	8,000	7,000	8,000	39
Pennsylvania No. 33,	Drift,	Non-gas.,	Fan,	12	5	4.5	120	1	Stine,	Steam,		4	110,000	36,400	112,000	286
Pennsylvania No. 37,*	Drift,	Non-gas.,	Fan,										10,000	8,000	10,000	
Pennsylvania No. 34,	Drift,	Non-gas.,	Fan,	10	3.2	3	110	1	Brazil,	Electricity,		2	36,000	23,200	36,000	155
Pennsylvania No. 35,†	Drift,	Non-gas.,	Fan,									1	6,400	5,000	6,400	

*Ventilated by fan at Pennsylvania No. 33.
†Ventilated by fan at Pennsylvania No. 34.

Pennsylvania No. 39,	Slope,	Non-gas.,	‡									1	7,200	5,200	7,200	84
Pennsylvania B,	Drift,	Non-gas.,	Natural,													
Pennsylvania D,	Drift,	Non-gas.,	Natural,													2
Penn Mary Coal Co.																
Penn Mary No. 1,	Drift,	Non-gas.,	Fan,	20	6	7	80	1.7	Connellsville,	Steam,		3	70,000	31,000	72,000	236
Penn Mary No. 2,	Drift,	Non-gas.,	Fan,	8	1.6	4	350	.8	Stine,	Electricity,		3	57,000	29,000	57,600	253
Penn Mary No. 3,	Slope,	Non-gas.,	Furnace,								36	1	11,000	8,000	12,000	68
Penn Mary No. 4,	Drift,	Non-gas.,	Furnace,								40	1	12,000	9,000	12,000	78
Penn Mary No. 5,	Drift,	Non-gas.,	Fan,	8	1.6	4	350	.8	Stine,	Electricity,		2	60,000	22,000	60,000	130
Russell Coal Co.																
Victor No. 24,	Slope,	Non-gas.,	Fan,	20	6	6	85	1.25	Pollock,	Steam,		5	100,000	35,200	102,000	251
Victor No. 25,	Drift,	Non-gas.,	Fan,	16	4.6	5	90	.85	Pollock,	Electricity,		5	70,000	31,500	72,400	121
Victor No. 26,	Drift,	Non-gas.,	Furnace,								40	1	10,000	8,000	10,000	75
Victor No. 27,	Drift,	Non-gas.,	Furnace,								30	2	20,000	10,000	20,400	79
Victor No. 29,	Slope,	Non-gas.,	Fan,	20	6	6	60	.5	Pollock,	Steam,		2	40,000	21,000	40,000	69
Barnes and Tucker																
Lancashire No. 3,	Drift,	Non-gas.,	Furnace,								48	1	20,000	14,000	21,200	61
Lancashire No. 6,§	Drift,	Non-gas.,	Fan,									1	4,600	4,600	4,600	14
Lancashire No. 7,	Drift,	Non-gas.,	Fan,	16	4	5	90	.8	Brazil,	Electricity,		1	16,000	10,000	16,600	31
Lancashire No. 10,	Drift,	Non-gas.,	Furnace,								42	1	23,000	10,000	24,000	66
Lancashire No. 12,	Drift,	Non-gas.,	Fan,	16	4	5	95	1	Brazil,	Electricity,		4	72,000	50,800	72,000	300
Carrolltown Coal Co.																
Victor No. 1,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Electricity,		3	37,000	22,200	37,000	217
Victor No. 2,	Drift,	Non-gas.,	Fan,	20	6	6	90	1.25	Pollock,	Steam,		2	35,000	16,000	35,720	157
Victor No. 3,‖	Drift,	Non-gas.,	Fan,									1	30,700	18,000	32,000	132
Victor No. 4,	Drift,	Non-gas.,	Furnace,								36	1	26,000	14,000	26,000	55
Victor No. 6,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Steam,		2	24,000	12,000	24,000	106
Victor No. 9,	Slope,	Non-gas.,	Fan,	20	6	6	75	.9	Pollock,	Steam,		2	50,000	21,000	50,000	97
Victor No. 10,	Slope,	Non-gas.,	Fan,	20	6	6	70	.75	Pollock,	Steam,		2	44,000	22,000	44,000	106
Empire Coal Mining Co.																
Empire A,	Drift,	Non-gas.,	Fan,	10	2.5	5	200	.85	Stine,	Steam,		3	54,000	26,800	54,420	212
Empire P,	Drift,	Non-gas.,	Fan,	12	4	3.5	80	.75	Brazil,	Steam,		2	32,000	12,000	32,000	83
Empire M,	Drift,	Non-gas.,	Fan,	8	2	3.3	200	.7	Stine,	Steam,		2	27,000	17,000	27,000	107
Empire R,	Drift,	Non-gas.,	Fan,	8	2	3.3	200	.7	Stine,	Electricity,		2	50,000	16,000	50,000	94
Clearfield Bituminous Coal Corporation																
Gazzam,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.7	Stine,	Steam,		1	40,000	15,000	41,000	91
West Branch,	Drift,	Non-gas.,	Fan,	10	5.2	4.9	225	2.2	Capell,	Steam,		3	45,000	30,000	46,000	233
Sample Run,	Slope,	Non-gas.,	Fan,	8	2	3.4	250	.8	Stine,	Steam,		2	42,000	26,000	42,400	90
Barr,	Slope,	Non-gas.,	Fan,	8	2	3.4	250	.8	Stine,	Steam,		2	42,000	19,800	42,600	151

§Ventilated by fan at Lancashire No. 12. ‖Ventilated by fan at Victor No. 2. ‡Exhaust steam from pump.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Greenwich Coal and Coke Co.																
Greenwich No. 2,	Drift,	Non-gas.,	Fan,	15	3.8	4.6	90	1	Brazil,	Steam,		3	40,000	24,200	42,000	157
Greenwich No. 3,	Slope,	Non-gas.,	Fan,	12	3.4	3.2	80	.8	Brazil,	Steam,			36,000	15,000	36,800	50
Greenwich No. 4,	Slope,	Non-gas.,	Fan,	12	3.4	3.2	80	.8	Brazil,	Steam,		2	22,000	10,000	22,700	50
Greenwich No. 5,	Drift,	Non-gas.,	Furnace,								40	8	20,000	12,400	20,000	124
Greenwich No. 8,	Slope,	Gaseous,	Furnace,								36	1	16,000	8,000	16,000	55
Sterling Coal Co.																
Sterling No. 1,	Drift,	Gaseous,	2 fans,	7	1.5	3	250	.6	Stine,	Electricity,		3				
				12	4	3.6	85		Brazil,	Steam,			51,600	22,280	52,000	149
Sterling No. 3,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.4	Stine,	Electricity,		1	32,000	8,000	32,400	51
Sterling No. 5,	Drift,	Non-gas.,	Fan,	7	1.5	3	250	.5	Stine,	Electricity,		1	25,000	9,000	25,000	55
Sterling No. 6,	Drift,	Non-gas.,	2 fans,	7	1.5	3	250	.7	2 Stines,	Electricity,		2	70,000	20,000	70,000	191
				7	1.5	3	250									
Madeira-Hill Coal Mining Co.																
Spangler No. 1,	Drift,	Non-gas.,	Furnace,								40	1	16,000	8,000	16,000	43
Spangler No. 2,	Drift,	Non-gas.,	Fan,	10	3.2	3	80	.6	Brazil,	Steam,		1	18,000	12,000	20,000	98
Spangler No. 3,	Drift,	Non-gas.,	Fan,	7	1.5	3	100	.3	Stine,	Steam,		1	8,000	4,500	8,000	129
Spangler No. 3½,	Drift,	Non-gas.,	Fan,	10	3.2	3	85	.7	Brazil,	Steam,		1	16,000	9,000	16,200	
Spangler No. 4,	Shaft,	Non-gas.,	Fan,	10	3.2	3	85	.8	Brazil,	Steam,		2	22,000	17,000	22,000	119

Peale, Peacock and Kerr, Incorporated																	
Glen Richey No. 3,	Drift,	Non-gas.,	Furnace,								40	1	10,000	8,000	11,300	19
Glen Richey No. 4,	Drift,	Non-gas.,	Furnace,								40	1	10,000	8,000	12,000	39
Glen Richey No. 5,	Slope,	Non-gas.,	Fan,	10	2.5	4	200	.8	Stine,	Steam,		2	42,000	29,000	44,000	181
Bloomington No. 19 A,	Drift,	Non-gas.,	Furnace,								40	2	21,500	15,000	33,000	129
Dixon Coal Co.																
Dixon No. 1,	Drift,	Non-gas.,	Fan,	12	8	4	130	1.5	Capell,	Steam,		5	70,000	34,200	70,000	288
Cherry Tree Coal Co.																
Emeigh Run No. 1,	Slope,	Non-gas.,	Fan,	20	6	6	85	1	Pollock,	Steam,		2	60,000	20,300	60,000	190
Emeigh Run No. 3,	Drift,	Non-gas.,	Furnace,								36	1	6,000	4,000	6,000	23
Duncan and Spangler Coal Co.																
Delta,	Drift,	Non-gas.,	Fan,	12	3.6	4	120	.7	Brazil,	Steam,		4	35,000	17,400	35,000	154
Blubaker No. 13,	Drift,	Non-gas.,	Fan,	8	2.3	3.5	200	.5	Stine,	Steam,		2	34,000	10,000	34,200	55
Cymbria Coal Co.																
Cymbria No. 1,	Drift,	Non-gas.,	Fan,	7	1.5	3.5	200	.5	Stine,	Steam,		2	34,000	14,600	34,000	
Cymbria No. 2,	Drift,	Non-gas.,	Fan,	10	3.2	3	85	.5	Brazil,	Steam,		1	18,000	12,000	18,000	202
Cymbria No. 3,	Shaft,	Non-gas.,	Fan,	7	6		125	.4	Sirocco,	Steam,		2	25,000	11,000	25,200	
Hines Coal Co.																
Hines No. 1,	Drift,	Non-gas.,	Fan,	7	1.5	3.5	200	.5	Stine,	Steam,		2	36,000	15,200	36,400	140
Hines No. 2,	Slope,	Non-gas.,	Fan,	7	1.5	3.5	200	.5	Stine,	Steam,		1	28,000	11,000	28,000	90
Allport Coal Co.																
Allport No. 1,	Drift,	Non-gas.,	Fan,	8	4	4	180		Capell,	Steam,		4	62,000	26,000	62,500	115
Oak Ridge Coal and Coke Co.																
Oak Ridge No. 1,	Drift,	Non-gas.,	Fan,	6	3	2.6	180		Capell,	Steam,		1	12,000	10,000	14,000	119
Oak Ridge No. 2,*	Drift,	Non-gas.,	Fan,									1	6,500	4,000	6,500	41
Nant Y Glo Coal Mining Co.																
Nant Y Glo No. 2,	Drift,	Non-gas.,	Furnace,								42	1	10,000	7,000	10,000	125
Rich Hill Coal Co.																
Rich Hill No. 1,	Drift,	Non-gas.,	Fan,	10	3	2.8	90	.6	Brazil,	Steam,		1	24,000	12,000	24,200	126
Rich Hill No. 2,†	Drift,	Non-gas.,	Fan,									1	7,200	5,000	7,200	

*Ventilated by fan at No. 1 mine.
†Ventilated by fan at No. 1 mine.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Woodland Coal and Coke Co.																
Woodland No. 1,	Drift,	Non-gas.,	Furnace,								42	1	14,580	9,800	15,000	46
Woodland No. 2,	Drift,	Non-gas.,	Furnace,								36	1	12,000	9,000	12,000	74
Potts Run Land Co.																
Potts Run No. 2,	Drift,	Non-gas.,	Fan,	8	4	3.5	90	.9	Robinson,	Steam,		1	28,000	16,000	28,000	58
Potts Run No. 3,	Drift,	Non-gas.,	Furnace,								36	1	8,200	6,200	8,200	58
Logan Coal Co.																
Logan No. 5,	Drift,	Non-gas.,	Fan,	10	3	2.8	85	.6	Brazil,	Steam,		2	39,000	20,000	39,000	67
Peerless Coal Mining Co.																
Peerless No. 1,	Drift,	Non-gas.,	Furnace,								42	1	18,000	8,000	18,000	68
Hastings Coal and Coke Co.																
Kinport No. 1,	Drift,	Non-gas.,	Fan,	10	3.4	3.2	80	.4	Cole,	Steam,		1	13,000	9,000	13,000	67
Clearfield and Cambria Coal and Coke Co. (Clearfield Colliery) Lee Run No. 1.	Drift,	Non-gas.,	Fan,	10	2.5	4	200	.7	Stine,	Steam,		1	25,000	11,200	25,000	50

Olanta Coal Mining Co.																
Olanta No. 1,	Drift,	Non-gas.,	2 furnaces								24 24	2	22,000	12,000	22,000	50
Randolph and Dixonville Coal Co.																
Randolph No. 2,	Drift,	Non-gas.,	Fan,	7	1.5	3	200	.4	Stine,	Steam,		1	24,000	15,000	24,000	44
Morrisdale Coal Mining Co.																
Patton No. 1,	Drift,	Non-gas.,	Furnace,								30	1	4,600	3,000	4,600	13
Patton No. 2,	Drift,	Non-gas.,	Furnace,								30	1	5,000	3,600	5,000	9
Patton Clay Manufacturing Co.																
Patton Clay No. 3,	Shaft,	Non-gas.,	Fan,	10	3	2.6	90		Brazil,	Steam,		1	24,000	14,000	24,000	45
Miller Run Coal Co.																
Miller Run,	Drift,	Non-gas.,	Furnace,								36	1	14,000	8,000	14,200	32
Reed Colliery Co.																
Berwindale No. 1,	Drift,	Non-gas.,	Fan,	7	1.5	3	100		Stine,	Steam,		1	12,000	6,000	12,000	48
Red Top Coal Co.																
Red Top No. 1,	Drift,	Non-gas.,	Furnace,								28	1	10,000	6,400	10,000	41
Little Creek Coal and Coke Co.																
Oshanter No. 13,	Drift,	Non-gas.,	Furnace,								36	1	8,000	6,000	8,000	33
Victor Coal Co.																
Empire G,	Drift,	Non-gas.,	Fan,	10	3	2.8	90	.5	Brazil,	Steam,		1	14,000	8,000	14,000	45
M. J. Kelly and Co., Incorporated																
Burnadette,	Drift,	Non-gas.,	Furnace,								24	1	10,000	7,000	10,000	17
Cheston Coal Co.																
Cheston No. 1,	Drift,	Non-gas.,	Furnace,								36	1	10,000	6,000	10,000	36
Mosier and Jose																
Wilson Run,	Drift,	Non-gas.,	Furnace,								36	1	8,000	5,000	8,000	9
Bellmore Coal Co.																
Klondike,	Drift,	Non-gas.,	Furnace,								24	1	7,200	4,600	7,600	12

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)	Pennsylvania No. 11,	Drift,	Non-gas.,	2	Electricity,	Lower Freeport—D,	51	54	48	20,804
	Pennsylvania No. 20,	Slope,		11	Compressed Air,		48	54	42	44,052
	Pennsylvania No. 21,	Drift,		7	Electricity,		43	46	40	39,540
	Pennsylvania No. 22,	Drift,		8	Electricity,		43	46	40	108,342
	Pennsylvania No. 25,	Drift,		6	Compressed Air,		44	52	36	13,847
	Pennsylvania No. 27,	Drift,		4	Compressed Air,		46	56	36	17,633
	Pennsylvania No. 28,	Slope,		12	Compressed Air,		42	48	36	103,029
	Pennsylvania No. 29,	Slope,		10	Compressed Air,		45	54	36	129,927
	Pennsylvania No. 30,	Drift,		8	Electricity,	Upper Kittanning—C,	51	54	48	79,233
	Pennsylvania No. 32,	Drift,		2	Compressed Air,		51	48	42	24,808
	Pennsylvania No. 33,	Drift,		20	Compressed Air,		42	48	36	202,107
	Pennsylvania No. 37,	Drift,		-----	Compressed Air,		40	44	36	60,509
Totals,				90						843,831
Russell Coal Co.,	Victor No. 24,	Slope,	Non-gas.,	33	Compressed Air,	Lower Freeport—D,	44	48	40	178,687
	Victor No. 25,	Drift,		2		Lower Freeport—D,	44	48	40	2,614
	Victor No. 29,	Slope,		1		Lower Kittanning—B,	39	42	36	143
Totals,				36						181,444
Barnes and Tucker,	Lancashire No. 3,	Drift,	Non-gas.,	11	Compressed Air,	Lower Freeport—D,	54	58	50	46,223
	Lancashire No. 12,	Drift,	Non-gas.,	17	Electricity,	Lower Freeport—D,	45	50	40	183,432
Totals,				28						229,655

Empire Coal Mining Co.,	Empire A,	Drift,	Non-gas.,	17	Compressed Air,	Lower Freeport—D,	50	54	46	148,249
	Empire P,	Drift,	Non-gas.,	6	Compressed Air,	Lower Kittanning—B,	40	42	38	48,909
Totals,				23						197,158
Clearfield Bituminous Coal Corporation,	West Branch,	Drift,	Gaseous,	20	Compressed Air.	Lower Freeport—D,	43	45	40	131,010
	Sample Run,	Slope,	Non-gas.,	6			47	60	34	65,230
	Barr,	Slope,	Non-gas.,	7			42	54	30	40,691
Totals,				33						236,931
Greenwich Coal and Coke Co.,	Greenwich No. 3,	Slope,	Non-gas.,	2	Compressed Air,	Lower Freeport—D,	36	36	36	972
	Greenwich No. 5,	Drift,	Non-gas.,	3		Lower Kittanning—B,	39	42	36	3,341
	Greenwich No. 8,	Slope,	Gaseous,	4		Lower Kittanning—B,	39	42	36	8,030
Totals,				9						12,343
Madeira-Hill Coal Mining Co.,	Spangler No. 2,	Drift,	Non-gas.,	3	Compressed Air,	Lower Freeport—D,	45	48	42	2,074
	Spangler No. 3 and 3½,	Drift,		7		Upper and Lower Freeport—D and E,	45	48	42	62,484
	Spangler No. 4,	Shaft,		6		Lower Freeport—D,	34	36	32	10,016
Totals,				16						74,574
Dixon Coal Co.,	Dixon No. 1,	Drift,	Non-gas.,	2	Electricity,	Lower Freeport—D,	36	48	30	7,309
Cherry Tree Coal Co.,	Emeigh Run No. 1,	Drift,	Non-gas.,	9	Compressed Air,	Lower Freeport—D,	48	54	42	138,376
Duncan and Spangler Coal Co.,	Delta,	Drift,	Non-gas.,	8	Compressed Air,	Lower Freeport—D,	51	54	48	65,020
Cymbria Coal Co.,	Cymbria No. 1,	Drift,	Non-gas.,	3	Electricity,	Lower Freeport—D,	51	54	48	5,300
	Cymbria No. 2,	Drift,	Non-gas.,	4	Electricity,	Upper Freeport—E,	40	44	36	
Totals,				7						
Allport Coal Co.,	Allport No. 1,	Drift,	Non-gas.,	7	Compressed Air,	Lower Freeport—D,	49	52	46	84,641
Oak Ridge Coal and Coke Co.,	Oak Ridge No. 1,	Drift,	Non-gas.,	9	Compressed Air,	Lower Freeport—D,	50	32	48	48,340
Clearfield and Cambria Coal and Coke Co.,	(Clearfield Colliery) Lee Run No. 1,	Drift,	Non-gas.,	5	Electricity,	Upper Freeport—E,	36	36	36	8,277
Totals,				282						2,133,199

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)						
Pennsylvania Nos. 11, 12, 13, 20, 25, Pennsylvania Nos. 21, 22, 26, 27, 28, 29, 30, 31,* 32, 33, 34, 35,* 37, 39,† B, D,	Cambria,	J. F. Marsteller,	Cresson,	George W. Brymer,	Patton,	Pennsylvania N. Y. C. and H. R.
Penn Mary Coal Co.						
Penn Mary Nos, 1, 2, 3, 4, 5,	Indiana,	H. P. Dowler,	Heilwood,	H. P. Dowler,	Heilwood,	Cherry Tree and Dixonville
Russell Coal Co.						
Victor No. 25, Victor Nos. 24, 26, 27, 29,	Indiana,	E. H. Ellsworth,	Clymer,	W. D. Dunsmore,	Clymer,	Pennsylvania New York Central
Barnes and Tucker						
Lancashire Nos. 3, 6, 7, 10, 12,	Cambria,	John Barnes,	Barnesboro,	John Barnes,	Barnesboro,	Pennsylvania
Carrolltown Coal Co.						
Victor Nos. 1, 2, 3, 4, 6, 9, 10,	Cambria,	Alex Dunsmore,	St. Benedict,	A. M. Dunsmore,	St. Benedict,	New York Central
Empire Coal Mining Co.						
Empire A,	Cambria,	R. A. Shillingford,	Clearfield,	W. R. Leadbitter,	Barnesboro,	New York Central
Empire P,	Indiana,			H. H. Hetrick,	Starford,	
Empire M,	Indiana,			James St. Clair,	Clymer,	
Empire R,	Indiana,			Amel Clemenson,	Clymer,	
Clearfield Bituminous Coal Corporation						
Gazzam,	Clearfield,	R. A. Shillingford,	Clearfield,	James Methven,	Gazzam,	New York Central
West Branch,	Cambria,			Timothy McCarthy,	Barnesboro,	
Sample Run,	Indiana,			John Charlton,	Clymer,	
Barr,	Indiana,			James Lang,	Clymer,	

*Idle.
†New mine.

Greenwich Coal and Coke Co. Greenwich Nos. 2, 3, 4, 5, 8,	Indiana,	M. W. Saxman,	Latrobe,	C. C. Dovey,	Cherry Tree,	Pennsylvania
Sterling Coal Co. Sterling Nos. 1, 3, 5, 6,	Cambria,	John B. Reed,	Elmora,			Pennsylvania
Madeira-Hill Coal Mining Co. Spangler Nos. 1, 2, 3, 3½, 4,	Cambria,	Fred G. Bitts,	Clearfield,	Thomas Langford,	Barnesboro,	Pennsylvania
Peale, Peacock and Kerr, Incorporated Glen Richey Nos. 3, 4, 5, Bloomington No. 19 A,	Clearfield,	Alex Dunsmore,	St. Benedict,	Andrew Harvey,	Glen Richey,	New York Central
Dixon Coal Co. Dixon No. 1,	Indiana,	J. Edgar Long,	Philadelphia,	James Keenan,	Idamar,	Pennsylvania and N. Y. C. and H. R.
Cherry Tree Coal Co. Emeigh Run Nos. 1 and 3,	Cambria,	Alex Dunsmore,	St. Benedict,	A. M. Dunsmore,	St. Benedict,	New York Central
Duncan and Spangler Coal Co. Delta, Blubaker No. 13,	Cambria,	John E. Reiley,	Spangler,	John E. Reiley,	Spangler,	Pennsylvania
Cymbria Coal Co. Cymbria Nos. 1, 2, 3,	Cambria,	A. M. Riddell,	Glen Campbell,	Harry Goodall,	Cymbria Mines,	Pennsylvania
Hines Coal Co. Hines Nos. 1 and 2,	Indiana,	J. Edgar Long,	Philadelphia,	James Keenan,	Idamar,	Pennsylvania
Allport Coal Co. Allport No. 1,	Cambria,	James H. Allport,	Barnesboro,	James C. Patterson,	Barnesboro,	Pennsylvania
Oak Ridge Coal and Coke Co. Oak Ridge Nos. 1 and 2,	Cambria,	H. J. Van Dusen,	Hastings,	H. J. Heuther,	Hastings,	Pennsylvania
Nant Y Glo Coal Mining Co. Nant Y Glo No. 2,	Cambria,	J. Edgar Long,	Philadelphia,	E. J. Humphries,	Elmora,	Pennsylvania
Rich Hill Coal Co. Rich Hill Nos. 1 and 2,	Cambria,	James H. Allport,	Hastings,	Charles E. Brown,	Hastings,	Pennsylvania
Woodland Coal and Coke Co. Woodland Nos. 1 and 2,	Cambria,	W. Deringer,	Spangler,			Pennsylvania

TABLE I—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Potts Run Land Co. Potts Run Nos. 2 and 3,	Clearfield,	Frederick B. Kerr,	Clearfield,	John Boag,	Boardman,	N. Y. C. and H. R.
Logan Coal Co. Logan No. 5,	Cambria,	I. A. Boucher,	Beaverdale,	Roland Kay,	Carrolltown,	Pennsylvania
Peerless Coal Mining Co. Peerless No. 1,	Cambria,	John R. Hays,	Elmora,			Pennsylvania
Hastings Coal and Coke Co. Kinport No. 1,	Cambria,	John C. Cosgrove,	Cherry Tree,	John C. Cosgrove,	Cherry Tree,	Pennsylvania
Clearfield and Cambria Coal and Coke Co. (Clearfield Colliery) Lee Run No. 1,	Clearfield,			W. H. Thomson,	La Jose,	Pennsylvania
Olanta Coal Mining Co. Olanta No. 1,	Clearfield,	John M. Snyder,	Hollidaysburg,	Thomas Atkinson,	Olanta,	N. Y. C. and H. R.
Randolph and Dixonville Coal Co. Randolph No. 2,	Indiana,			John Waddell,	Dixonville,	Pennsylvania
Morrisdale Coal Mining Co. Patton No. 1, Patton No. 2,	Cambria,			Edward Kelly, John Gutwald,	Carrolltown,	N. Y. C. and H. R.
Patton Clay Manufacturing Co. Patton Clay No. 3,	Cambria,	George E. Prindible,	Patton,	Daniel McMuldrian,	Patton,	N. Y. C. and H. R.
Miller Run Coal Co. Miller Run,	Cambria,	C. W. Stuart,	Hastings,			Pennsylvania
Reed Colliery Co. Berwindale No. 1,	Clearfield,	W. H. Reed,	Dudley,	W. H. Reed,	Dudley,	Pennsylvania

Red Top Coal Co.						
Red Top No. 1,	Cambria,	Charles Hetrick,	Hastings,	Samuel Daff,	Hastings,	Pennsylvania
Little Creek Coal and Coke Co.						
Oshanter No. 3,	Clearfield,	F. B. Stage,	Oshanter,			N. Y. C. and H. R.
Victor Coal Co.						
Empire G,	Clearfield,	R. A. Shillingford,	Clearfield,	A. M. Riddell,	Glen Campbell,	N. Y. C. and H. R.
M. J. Kelly and Co., Incorporated						
Burnadette,	Clearfield,	M. J. Kelly,	Olanta,			N. Y. C. and H. R.
Cheston Coal Co.						
Cheston No. 1,	Cambria,	C. L. Forsberg,	Patton,			Pennsylvania
Mosier and Jose						
Wilson Run,	Clearfield,	A. P. Mosier,	La Jose,			Pennsylvania
Bellmore Coal Co.						
Klondike,	Clearfield,	Thomas Bellis,	Altoona,			N. Y. C. and H. R.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver)																
Pennsylvania No. 11,	Cambria,											1				
Pennsylvania No. 12,		27,706	2,479	293	50,131	80,609	32,971	152	119	350		1	2,700	300		27
Pennsylvania No. 13,																
Pennsylvania No. 20,		81,177	3,838	14		85,029			159	181			1,905	200		28
Pennsylvania No. 21,		79,062	4,690	1,022	151,656	236,430	95,535	180	258	440	2		12,180	1,000		12
Pennsylvania No. 22,											2	1				
Pennsylvania No. 25,		35,686	704	65		36,455			88	135			780	1,200		15
Pennsylvania No. 26,		20,576	107	2,475		23,158			236	49			900	120		19
Pennsylvania No. 27,		287,289	2,855	603		290,747			116	210			1,200	700		26
Pennsylvania No. 29,									220	219			1,600	860		29
Pennsylvania No. 28,		157,971	3,899	24		161,894			199	272	2		1,400	840		32
Pennsylvania No. 30,		189,336	2,713	35		192,084			245	280		1	2,100	720		26
Pennsylvania No. 32,		44,171	4	5		44,180			269	44			1,300	640		
Pennsylvania Nos. 33 and 37,		230,414	7,208	13		237,635			196	307		1	4,300	1,870		
Pennsylvania No. 34,		139,120		236		139,356			254	163			800	680		11
Pennsylvania No. 39,*										46			600	1,200		
Pennsylvania B,		30				30				3			300			
Pennsylvania D,				1,373		1,373								200		
Totals,		1,292,538	28,497	6,158	201,787	1,528,980	128,506	332		2,693	6	5	32,065	10,530		225

*New mine.

Penn Mary Coal Co.																
Penn Mary No. 1,	Indiana,	280,870	10,651	2,375		293,896			306	251	1	4	9,900	4,188		1
Penn Mary No. 2,	Indiana,	325,186	15	47		325,248			306	267	1	2	8,064	3,960		
Penn Mary No. 3,	Indiana,	5,381	42			5,423			306	74			185	131		3
Penn Mary No. 4,	Indiana,	94,470		9		94,479			306	83		1	3,396	48		
Penn Mary No. 5,	Indiana,	169,013				169,013			306	138		3	3,900	864		
Totals,		874,920	10,708	2,431		888,059				813	2	10	25,445	9,191		4
Russell Coal Co.																
Victor No. 24,	Indiana,	273,641	5,635			279,276			249	278			60,700	475		33
Victor No. 25,	Indiana,	97,823		1,007		98,830			210	131	1		20,750	125		1
Victor No. 26,	Indiana,	19,435	323	26		19,784			80	81			11,700	50		2
Victor No. 27,	Indiana,	52,091	688			52,779			255	87			1,000	100		6
Victor No. 29,	Indiana,	3,881	372			4,253			55	77			3,750			4
Totals,		446,871	7,018	1,033		454,922				654	1		97,900	750		46
Barnes and Tucker																
Lancashire No. 3,	Cambria,	47,463	988			48,451			224	66		1	6,900	525		11
Lancashire No. 6,	Cambria,	14,072				14,072			272	15			1,620			3
Lancashire No. 7,	Cambria,	24,512	682			25,194			175	32			4,250			4
Lancashire No. 10,	Cambria,	34,775	1,788			36,563			190	66						
Lancashire No. 12,	Cambria,	296,090	6,050			302,140			272	329	2		46,450	5,158		4
Totals,		416,912	9,508			426,420				508	2	1	59,220	5,683		22
Carrolltown Coal Co.																
Victor No. 1,	Cambria,	64,487	18	51		64,556			93	228			14,000	25		
Victor No. 2,	Cambria,	29,672	4,897	92		34,661			257	172		1	28,175			
Victor No. 3,	Cambria,	35,999	157	261		36,417			82	140		1	7,875	75		
Victor No. 4,	Cambria,	46,493	1	380		46,874			261	57			10,000			7
Victor No. 6,	Cambria,	89,979	881	28		90,888			239	113	1		19,825			
Victor No. 9,	Cambria,	23,129	979			24,108			81	106			5,250	150		8
Victor No. 10,	Cambria,	72,717	3,085	6,312		82,114			269	114			17,500	100		12
Totals,		362,476	10,018	7,124		379,618				930	1	2	102,625	350		27
Empire Coal Mining Co.																
Empire A,	Cambria,	167,787	4,714	3,350		175,851			233	230	1		26,200	300		23
Empire P,	Indiana,	51,715	534	52		52,301			171	90			10,000	120		15
Empire M,	Indiana,	53,233	739	38		54,010			175	115			12,000			
Empire R,	Indiana,	55,478		233		55,711			178	100			15,000			
Totals,		328,213	5,987	3,673		337,873				535	1		63,200	420		38

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Clearfield Bituminous Coal Corporation																
Gazzam,	Clearfield,	40,590	822	925	.....	42,337	.....	.....	154	101	....	....	17,200	230	.....	15
West Branch,	Cambria,	145,727	8,120	704	.....	154,551	.....	.....	184	245	1	3	20,800	1,200	.....	19
Sample Run,	Indiana,	62,990	2,099	614	.....	65,703	.....	.....	220	100	....	1	21,250	1,000	.....	7
Barr,	Indiana,	72,520	1,814	30	.....	74,364	.....	.....	213	160	....	1	20,000	700	.....	10
Totals,		321,827	12,855	2,273	.....	336,955	.....	.....	.....	606	1	5	79,250	3,130	.....	51
Greenwich Coal and Coke Co.																
Greenwich No. 2,	Indiana,	131,945	4,901	1,308	.....	138,154	.....	.....	237	173	1	....	29,250	675	.....	2
Greenwich No. 3,	Indiana,	30,346	.....	.....	.....	30,346	.....	.....	255	55	....	....	7,700	200	.....	1
Greenwich No. 4,	Indiana,	39,281	2,667	826	.....	42,774	.....	.....	239	57	....	....	9,000	100	.....	4
Greenwich No. 5,	Indiana,	75,128	95	230	.....	75,453	.....	.....	182	138	....	....	19,000	325	.....	12
Greenwich No. 8,	Indiana,	39,908	2,549	.....	.....	42,457	.....	.....	220	61	....	1	7,800	90	.....	1
Totals,		316,608	10,212	2,364	.....	329,184	.....	.....	.....	484	1	1	72,750	1,390	.....	20
Sterling Coal Co.																
Sterling No. 1,	Cambria,	123,346	1,102	869	.....	125,317	.....	.....	209	163	....	....	11,500	.....	.....	.....
Sterling No. 3,	Cambria,	14,158	.....	.....	.....	14,158	.....	.....	105	55	....	....	5,000	.....	.....	.....
Sterling No. 5,	Cambria,	13,544	.....	.....	.....	13,544	.....	.....	99	59	....	....	5,000	.....	.....	.....
Sterling No. 6,	Cambria,	149,504	554	378	.....	150,436	.....	.....	226	202	....	....	18,500	.....	.....	.....
Totals,		300,552	1,656	1,247	.....	303,455	.....	.....	.....	479	....	....	40,000	.....	.....	.....

Madeira-Hill Coal Mining Co.																
Spangler No. 1,	Cambria,	59,557	157	419		60,133			249	45			1,100	50		5
Spangler No. 2,	Cambria,	85,723	1,668	217		87,608			222	104	2		1,800			13
Spangler No. 3 and 3½,	Cambria,	108,978	1,632	108		110,718			205	137		1	2,750	150		10
Spangler No. 4,	Cambria,	41,057	3,148			44,205			126	130			1,500	2,000		
Totals,		295,315	6,605	744		302,664				416	2	1	7,150	2,200		28
Peale, Peacock and Kerr, Incorporated																
Glen Richey No. 3,	Clearfield,	7,514	7	125		7,646			106	20		1	1,575			3
Glen Richey No. 4,	Clearfield,	13,468	73	94		13,635			86	41		2	2,800			2
Glen Richey No. 5,	Clearfield,	139,757	1,017	902		141,676			251	197		3	1,750	350		18
Bloomington No. 19 A,	Clearfield,	112,140	131			112,271			236	136			4,850	50		10
Totals,		272,879	1,228	1,121		275,228				394		6	10,975	400		33
Dixon Coal Co.																
Dixon No. 1,	Indiana,	224,631	1,232	424		226,287			261	303		2	43,950	3,930		6
Cherry Tree Coal Co.																
Emeigh Run No. 1,	Cambria,	164,844	4,471	681		169,996			267	205	1		24,500	150		22
Emeigh Run No. 3,	Cambria,	1,271	48			1,319			23	26			250			1
Totals,		166,115	4,519	681		171,315				231	1		24,750	150		23
Duncan and Spangler Coal Co.																
Delta,	Cambria,	106,431	1,844	116		108,391			138	168		1	10,000	100		24
Blubaker No. 13,	Cambria,	58,138	1,032	197		59,367			140	64		1	5,000	100		
Totals,		164,569	2,876	313		167,758				232		2	15,000	200		24
Cymbria Coal Co.																
Cymbria Nos. 1, 2, 3,	Cambria,	159,900	4,880	640		165,420			213	220			10,000	300	250	4
Hines Coal Co.																
Hines No. 1,	Indiana,	56,932	44	571		57,547			146	150		1	42,000	500		14
Hines No. 2,	Indiana,	60,854	627	11,286		72,767			237	96		1	27,000	1,200		12
Totals,		117,786	671	11,857		130,314				246		2	69,000	1,700		26
Allport Coal Co.																
Allport No. 1,	Cambria,	116,239	2,703	520		119,462			267	124			3,000	1,000		1
Oak Ridge Coal and Coke Co.																
Oak Ridge No. 1,	Cambria,	22,369	2,975	206	52,777	78,327	35,225	100	150	159			10,825	127		17
Oak Ridge No. 2,	Cambria,	14,693				14,693			150	41			1,975			2
Totals,		37,062	2,975	206	52,777	93,020	35,225	100		200			12,800	127		19

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Nant Y Glo Coal Mining Co.																
Nant Y Glo No. 2,	Cambria,	83,703	------	23	------	83,726	------	------	284	130	----	----	9,048	25	------	23
Rich Hill Coal Co.																
Rich Hill Nos. 1 and 2,	Cambria,	78,934	570	2,032	------	81,536	------	------	227	134	----	1	5,602	200	------	9
Woodland Coal and Coke Co.																
Woodland No. 1,	Cambria,	26,150	150	100	------	26,400	------	------	253	47	----	----	1,500	300	------	6
Woodland No. 2,		31,875	150	225	------	32,250	------	------	176	78	----	----	2,000	300	------	7
Totals,		58,025	300	325	------	58,650	------	------	------	125	----	----	3,500	600	------	13
Potts Run Land Co.																
Potts Run No. 2,	Clearfield,	31,040	784	500	------	32,324	------	------	134	64	----	----	5,935	100	------	10
Potts Run No. 3,		23,675	------	------	------	23,675	------	------	133	62	----	----	4,500	150	------	3
Totals,		54,715	784	500	------	55,999	------	------	------	126	----	----	10,435	250	------	13
Logan Coal Co.																
Logan No. 5,	Cambria,	52,963	2,166	240	------	55,369	------	------	249	77	----	----	9,125	500	------	------
Peerless Coal Mining Co.																
Peerless No. 1,	Cambria,	49,517	80	252	------	49,849	------	------	248	71	----	----	5,250	15	------	4
Hastings Coal and Coke Co.																
Kinport No. 1,	Cambria,	6,924	720	894	30,784	39,322	19,147	50	235	81	---	----	6,125	247	50	1

Clearfield and Cambria Coal and Coke Co. (Clearfield Colliery) Lee Run No. 1,	Clearfield,	28,008	958	194		29,760			117	61			8,675	730		
Olanta Coal Mining Co. Olanta No. 1,	Clearfield,	25,877	192	15		26,084			270	53	2		1,500	310		5
Randolph and Dixonville Coal Co. Randolph No. 2,	Indiana,	23,726	25	50		23,801			118	46			1,000	200		2
Morrisdale Coal Mining Co. Patton No. 1,	Cambria,	14,262				14,262			234	14			4,500	80		3
Patton No. 2,		9,146				9,146			203	9			3,000			2
Totals,		23,408				23,408				23			7,500	80		5
Patton Clay Manufacturing Co. Patton Clay No. 3,	Cambria,		20,068			20,068		11	303	55			6,250	14,250		10
Miller Run Coal Co. Miller Run,	Cambria,	18,695				18,695			219	34			4,000	50		5
Reed Colliery Co. Berwindale No. 1,	Clearfield,	15,000	240	250		15,490			221	53		1	2,000	500		4
Red Top Coal Co. Red Top No. 1,	Cambria,	14,455	17	113		14,585			198	42			5,075	250		2
Little Creek Coal and Coke Co. Oshanter No. 3,	Clearfield,	11,989		25		12,014			227	37			4,150	680		3
Victor Coal Co. Empire G,	Clearfield,	9,456	326	103		9,885			94	50			1,975			
M. J. Kelly and Co., Incorporated Burnadette,	Clearfield,	8,204	125	75		8,404			199	19			1,750	250		3
Cheston Coal Co. Cheston No. 1,	Cambria,	6,295	330			6,625			141	39						2
Mosier and Jose Wilson Run,	Clearfield,	1,543		64		1,607			47	10			225			2
Bellmore Coal Co. Klondike,	Clearfield,	625		551		1,176			18	12			90			3
Grand totals,		6,788,075	151,049	48,515	285,348	7,272,987	182,878	482		11,346	20	39	862,355	60,588	300	706

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	Cambria,	2	70	31	3,425	3,495			18	27	2,720	37	5,102	3,433	10	9
Penn Mary Coal Co.,	Indiana,			6	1,340	1,340			11	6	1,655	2	900	550	4	2
Russell Coal Co.,	Indiana,	1	150	11	1,560	1,710			2	10	950	18	2,547	1,260	3	3
Barnes and Tucker,	Cambria,	11	1,385			1,385			9	7	1,080	11	1,475	1,050	5	2
Carrolltown Coal Co.,	Cambria,			13	1,950	1,950			9	7	1,750	2	970	365	5	3
Empire Coal Mining Co.,	Cambria, Indiana,			10	1,160	1,160			3	4	480	1	110	100	2	3
Clearfield Bituminous Coal Corporation,	Clearfield, Cambria, Indiana,			16	1,935	1,935			2	10	650	7	1,580	910	1	5
Greenwich Coal and Coke Co.,	Indiana,			8	850	850			8	11	1,301	4	1,040	700	3	3
Sterling Coal Co.,	Cambria,			6	800	800			7	4	700	3	650	650	3	2
Madeira-Hill Coal Mining Co.,	Cambria,			6	690	690			2	6	330	8	700	555	1	2
Peale, Peacock and Kerr, Incorporated,	Clearfield,			3	380	380				3	350					
Dixon Coal Co.,	Indiana,			2	600	600			4	2	300	2	160	80	1	
Cherry Tree Coal Co.,	Cambria,			4	600	600				3	150	2	400	300		1
Duncan and Spangler Coal Co.,	Cambria,			5	420	420			2	3	350	6	600	200	1	1
Cymbria Coal Co.,	Cambria,			4	625	625			5	6	600	2	800	400	2	1
Hines Coal Co.,	Indiana,			2	175	175				3	145	1	75	50		1
Allport Coal Co.,	Cambria,			4	460	460			3	3	500	2	1,500	600	1	1
Oak Ridge Coal and Coke Co.,	Cambria,			4	330	330				3	150	1	150	75		2
Rich Hill Coal Co.,	Cambria,			1	100	100				2	120					
Potts Run Land Co.,	Clearfield,	1	75			75				1	30	1	30	30		
Logan Coal Co.,	Cambria,			2	300	300			2	2	200	2	150	100	1	
Hastings Coal and Coke Co.,	Cambria,			1	150	150			1	2	165	1	30	30	1	

Clearfield and Cambria Coal and Coke Co.,	Clearfield,			2	300	300			1	2	175				1	
Olanta Coal Mining Co.,	Clearfield,			1	100	100				1	100				1	
Randolph and Dixonville Coal Co.,	Indiana,			1	50	50				1	20					
Patton Clay Manufacturing Co.,	Cambria,									2	75	1	100	60		
Reed Colliery Co.,	Clearfield,			1	80	80						2	150	100		
Victor Coal Co.,	Clearfield,			2	350	350			1	2	200				1	1
M. J. Kelly and Co., Incorporated,	Clearfield,											1	40	20		
Totals,		15	1,680	146	18,730	20,410			90	133	15,246	117	19,259	11,618	47	42

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	Cambria,	16	....	1	1,198	69	668	69	122	69	154	.....	2,366	1	....	35	38	105	2	146	327	2,693
Penn Mary Coal Co.,	Indiana,	5	3	....	674	5	15	5	4	6	48	.....	765	5	2	7	10	....	7	17	48	813
Russell Coal Co.,	Indiana,	5	....	....	394	35	66	35	17	3	40	.....	595	1	....	7	11	....	2	38	59	654
Barnes and Tucker,	Cambria,	5	1	....	136	12	258	12	24	10	9	5	472	....	....	11	7	....	3	15	36	508
Carrolltown Coal Co.,	Cambria,	7	....	....	779	.....	.....	.....	30	11	28	15	870	1	....	10	10	....	2	37	60	930
Empire Coal Mining Co.,	Cambria, Indiana,	4	1	....	234	11	186	11	18	5	26	.....	496	....	....	5	6	....	2	26	39	535
Clearfield Bituminous Coal Corporation,	Clearfield, Cambria, Indiana,	4	4	3	155	20	283	20	25	7	34	.....	555	....	1	8	13	....	3	26	51	606
Greenwich Coal and Coke Co.,	Indiana,	5	....	1	399	.....	.....	.....	16	3	12	.....	436	2	....	8	7	....	2	29	48	484
Sterling Coal Co.,	Cambria,	4	....	2	401	.....	.....	.....	18	9	12	.....	446	....	....	6	6	....	2	19	33	479
Madeira-Hill Coal Mining Co.,	Cambria,	4	....	....	297	5	43	5	14	7	7	7	389	1	....	4	7	....	1	14	27	416
Peale, Peacock and Kerr, Incorporated,	Clearfield,	4	....	....	332	.....	.....	.....	16	6	10	.....	368	1	....	6	2	....	1	16	26	394
Dixon Coal Co.,	Indiana,	1	1	....	247	2	20	2	7	3	3	2	288	1	....	2	2	....	1	9	15	303
Cherry Tree Coal Co.,	Cambria,	2	....	....	76	9	89	9	11	5	12	.....	213	1	....	3	4	....	....	10	18	231
Duncan and Spangler Coal Co.,	Cambria,	2	....	....	100	4	80	4	9	6	4	.....	209	1	....	3	4	....	1	14	23	232
Cymbria Coal Co.,	Cambria,	3	....	....	145	3	32	3	10	3	3	.....	202	1	3	2	3	....	1	8	18	220
Hines Coal Co.,	Indiana,	2	....	....	207	.....	.....	.....	12	5	4	.....	230	1	....	3	2	....	1	9	16	246
Allp ' Coal Co.,	Cambria,	1	1	....	28	7	52	7	6	2	11	.....	115	1	....	2	3	....	1	2	9	124
Oak Ridge Coal and Coke Co.,	Cambria,	2	....	....	56	6	76	6	6	4	4	.....	160	1	....	1	3	27	1	7	40	200
Nant Y Glo Coal Mining Co.,	Cambria,	1	....	....	105	.....	.....	.....	14	.....	5	.....	125	1	....	1	....	....	....	3	5	130
Rich Hill Coal Co.,	Cambria,	1	....	....	110	.....	.....	.....	5	6	4	.....	126	....	1	1	2	....	....	4	8	134

Woodland Coal and Coke Co.,	Cambria,	2			114				3		1		120	1						4	5	125
Potts Run Land Co.,	Clearfield,	2			101				5		8		116	1		2	1			6	10	126
Logan Coal Co.,	Cambria,	1			61				1		4		67			1	4			5	10	77
Peerless Coal Mining Co.,	Cambria,	1	1		58				5			3	68	1	1	1					3	71
Hastings Coal and Coke Co.,	Cambria,	1			61	1		1	1		2		67	1		1	2	7	1	2	14	81
Clearfield and Cambria Coal and Coke Co.,	Clearfield,	1			34		11		1	2	1		50	1		2	2		1	5	11	61
Olanta Coal Mining Co.,	Clearfield,	1			22	2	19	2	2		2		50	1		1	1				3	53
Randolph and Dixonville Coal Co.,	Indiana,	1			38				2		2	1	44	1					1		2	46
Morrisdale Coal Mining Co.,	Cambria,	1			18				3				22		1						1	23
Patton Clay Manufacturing Co.,	Cambria,	1			36				6		2		45	1		1	1		1	6	10	55
Miller Run Coal Co.,	Cambria,	1			27				3		1		32							2	2	34
Reed Colliery Co.,	Clearfield,	1	1		40				2		2	2	48	1	1	1	2				5	53
Red Top Coal Co.,	Cambria,	1			37				2			1	41						1		1	42
Little Creek Coal and Coke Co.,	Clearfield,	1			30				2				33						1	3	4	37
Victor Coal Co.,	Clearfield,	1			20	3	15	3	2			1	45	1		1	1			2	5	50
M. J. Kelly and Co., Incorporated,	Clearfield,	1			15				1				17		1					1	2	19
Cheston Coal Co.,	Cambria,	1	1		32				2				36	1	1				1		3	39
Mosier and Jose,	Clearfield,				8				1				9	1							1	10
Bellmore Coal Co.,	Clearfield,	1			10				1				12									12
Totals,		98	14	7	6,835	194	1,913	194	429	172	455	37	10,348	32	12	136	154	139	40	485	998	11,346

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pennsylvania Coal and Coke Co. (T. H. Watkins, Receiver),	Cambria,	19	14	17	12	11	12	10	14	19	23	23	22	196
Penn Mary Coal Co.,	Indiana,	26	24	27	26	26	25	24	24	26	26	26	26	306
Russell Coal Co.,	Indiana,	18	14	21	17	14	12	11	13	13	13	11	13	170
Barnes and Tucker,	Cambria,	20	9	19	17	11	21	16	17	21	25	25	25	226
Carrolltown Coal Co.,	Cambria,	18	20	25	18	14	12	10	13	12	13	13	15	183
Empire Coal Mining Co.,	Cambria, Indiana,	12	12	13	7	7	13	16	15	21	25	24	24	189
Clearfield Bituminous Coal Corporation,	Clearfield, Cambria, Indiana,	20	21	21	11	9	17	3	9	17	20	20	25	193
Greenwich Coal and Coke Co.,	Indiana,	24	28	24	19	20	24	25	25	20	23	26	25	283
Sterling Coal Co.,	Cambria,	8	8	8	10	10	16	19	12	19	13	18	19	160
Madeira-Hill Coal Mining Co.,	Cambria,	20	16	17	17	13	16	14	18	17	14	20	19	201
Peale, Peacock and Kerr, Incorporated,	Clearfield,	12	13	12	9	8	12	10	12	13	24	22	23	170
Dixon Coal Co.,	Indiana,	26	15	26	21	25	26	4	21	24	25	24	24	261
Cherry Tree Coal Co.,	Cambria,	20	12	12	11	8	11	11	12	12	12	11	13	145
Duncan and Spangler Coal Co.,	Cambria,	10	8	10	11	11	11	11	11	10	8	20	18	139
Cymbria Coal Co.,	Cambria,	22	14	25	21	15	12	13	11	18	18	22	22	213
Hines Coal Co.,	Indiana,	8	10	10	8	7	9	21	24	22	24	24	25	192
Allport Coal Co.,	Cambria,	24	19	26	18	20	23	19	23	24	23	24	24	267
Oak Ridge Coal and Coke Co.,	Cambria,	16	14	10	7	6	6	2	1	15	21	25	27	150
NantYGlo Coal Mining Co.,	Cambria,	24	21	27	23	25	26	19	24	24	23	24	24	284
Rich Hill Coal Co.,	Cambria,	25	23	26	16	13	14	14	14	16	20	24	22	227
Woodland Coal and Coke Co.,	Cambria,	24	22	14	10	13	13	16	20	22	17	23	21	215
Potts Run Land Co.,	Clearfield,	22	18	18	7	------	------	------	------	------	19	24	26	134
Logan Coal Co.,	Cambria,	23	19	22	20	23	21	19	19	21	22	20	20	249
Peerless Coal Mining Co.,	Cambria,	24	24	24	22	23	23	22	19	19	12	16	20	248
Hastings Coal and Coke Co.,	Cambria,	21	6	24	24	23	19	3	23	22	24	24	22	235
Clearfield and Cambria Coal and Coke Co.,	Clearfield,	10	8	11	15	6	5	5	8	12	11	12	14	117
Olanta Coal Mining Co.,	Clearfield,	25	24	27	26	25	26	26	5	10	26	25	25	270
Randolph and Dixonville Coal Co.,	Indiana,	18	13	14	13	1	3	2	2	------	10	20	22	118
Morrisdale Coal Mining Co.,	Cambria,	18	16	22	24	25	24	7	7	17	19	20	20	219
Patton Clay Manufacturing Co.,	Cambria,	23	22	27	25	26	26	26	26	26	26	26	24	303

Miller Run Coal Co.,	Cambria,	14	17	18	11	7	19	25	24	23	18	20	23	219
Reed Colliery Co.,	Clearfield,	16	17	18	20	22	21	20	21	22	16	15	13	221
Red Top Coal Co.,	Cambria,	13	15	18	14	3	9	14	22	25	20	23	22	198
Little Creek Coal and Coke Co.,	Clearfield,	10	15	21	20	11	9	26	24	18	25	25	23	227
Victor Coal Co.,	Clearfield,							21	22	6		21	24	94
M. J. Kelly and Co., Incorporated,	Clearfield,	14	19	14	10	12	13	12	21	20	21	22	21	199
Cheston Coal Co.,	Cambria,	14	10	18	9	6	5	5	6	16	12	20	20	141
Mosier and Jose,	Clearfield,	22	13	8	4									47
Bellmore Coal Co.,	Clearfield,												18	18

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	6	George Repko,	Polish,	Miner,	17	S.			Pennsylvania No. 22,	Cambria,	Killed by fall of roof on heading while taking loaded car from his working place to heading.
	7	Joseph Kuropinski,	Hungarian,	Miner,	43	M.	1		Olanta No. 1,	Clearfield,	Fatally burned by explosion of powder in his room.
	18	David McNair,	Scotch,	Miner,	70	M.			Pennsylvania No. 28,	Cambria,	Fatally injured by fall of slate in his room near face. After firing shot he returned to the face without examining roof.
Feb.	18	Robert Barcley,	American,	Runner,	18	S.			Lancashire No. 12,	Cambria,	Killed by mine cars on eighth left heading while gathering trip.
March	1	Richard Partingdon,	English,	Miner,	57	M.	1	4	Lancashire No. 12,	Cambria,	Killed by fall of roof at face of pillar work. He failed to support the roof.
April	9	Jaunce Bauman,	American,	Miner,	29	M.	1	2	Olanta No. 1,	Clearfield,	Killed by fall of roof at face in room-neck.
	23	Ralph Leech,	German,	Miner,	43	M.	1	1	Victor No. 25,	Indiana,	Killed by fall of roof at face while taking out stump.
May	13	Edward Booth,	American,	Miner,	28				West Branch,	Cambria,	Killed by fall of roof in pillar working near face.
	20	Joseph Catanies,	Italian,	Miner,	37	M.	1	4	Spangler No. 2,	Cambria,	Killed by fall of roof while undermining in room at face. He failed to prop coal.
June	18	Andy Petne,	Slavonian,	Miner,	28	M.	1	3	Emeigh Run No. 1,	Cambria,	Killed by fall of roof at room face while undermining.
July	8	Joseph Catanise,	Italian,	Miner,	29				Spangler No. 2,	Cambria,	Killed by fall of roof in his working place while placing props in pillar working.
	8	John Muddry,	Austrian,	Miner,	38	M.	1	4	Pennsylvania No. 21,	Cambria,	Killed by fall of slate while repairing truck fifty feet back from the face. He failed to prop the slate.
Sept.	3	John Matchnck,	Austrian,	Miner,	47	M.	1	3	Penn Mary No. 1,	Indiana,	Killed by fall of roof in his room, No. 8, on fifth right heading. He failed to prop coal.

Sept.	15	John Simco,	Slavonian,	Scraper,	20	S.	....	....	Pennsylvania No. 28,	Cambria,	Killed by fall of roof while cutting coal in No. 11 room, third main heading.
	16	Andrew Chordas,	Hungarian,	Miner,	50	M.	1	....	Empire A,	Cambria,	Killed by fall of roof in room, sixth right heading, while loading car. He failed to prop roof.
	23	Danko Rodick,	Slavonian,	Miner,	35	M.	1	2	Penn Mary No. 2,	Indiana,	Killed by fall of roof at face of room, No. 1, on tenth left heading.
Oct.	18	Joseph Dereatas,	Italian,	Loader,	36	M.	1	3	Pennsylvania No. 21,	Cambria,	Killed by fall of roof in room while loading car. He failed to prop roof.
Nov.	15	Mike Cruchensky,	Hungarian,	Miner,	27	M.	1	....	Greenwich No. 2,	Indiana,	Killed by fall of roof in his room while undermining. He failed to prop roof.
Dec.	10	John Bobronko,	Hungarian,	Miner,	16	....	....	....	Pennsylvania No. 22,	Cambria,	Fatally burned by powder while making up a shot in his room. A spark from the lamp on his cap ignited the powder.
	24	Mike Topatko,	Polish,	Miner,	32	M.	1	1	Victor No. 6,	Cambria,	Killed by fall of roof in No. 4 room, eleventh right heading, while undermining.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 6	John Talbosh,	Greek,	Miner,	23	S.	Pennsylvania No. 22,	Cambria,	Pelvis bone broken by fall of roof on heading while lifting car on track 100 feet from face at air course switch.
7	George Barrese,	Italian,	Miner,	28	S.	Spangler No. 3½,	Cambria,	Hip fractured by fall of roof while undermining at room face.
13	Wassil Mish,	Austrian,	Miner,	23	S.	Penn Mary No. 4,	Indiana,	Arm broken by fall of slate while drawing out rail on pillar work near face.
22	George Chernich,	Polish,	Loader,	45	M.	Sample Run,	Indiana,	Leg broken by fall of coal at face of his room while loading car.
25	Edward Ross,	American,	Door-boy,	17	S.	Penn Mary No. 1,	Indiana,	Leg broken by motor. He stepped off rear end and fell and was caught by motor following. Outside.
Feb. 1	Joseph Koval,	Polish,	Miner,	28	M.	Hines No. 2,	Indiana,	Rib fractured and ankle sprained by mine car in room while bringing car to heading.
6	John W. Jenkins,	Welsh,	Company man,	46	M.	West Branch,	Cambria,	Finger blown off while handling detonating cap, in 17 tunnel.
8	Pete Yolnge,	Russian,	Miner,	40	M.	Penn Mary No. 1,	Indiana,	Collar bone broken and arm fractured by fall of coal while undermining in room.
March 3	M. B. Croyle,	American,	Miner,	22	M.	Dixon No. 1,	Indiana,	Two fingers cut off by rail falling upon them while loading rails.
9	Frank Raffele,	Austrian,	Miner,	42	S.	Blubaker No. 13,	Cambria,	Collar bone broken by fall of coal while undermining in room.
16	Mike Lesky,	Hungarian,	Oiler,	26	M.	Penn Mary No. 2,	Indiana,	Leg broken. Caught between mine cars on tipple. Outside.
19	James Tubbs,	American,	Miner,	50	M.	Berwindale No. 1,	Clearfield,	Head cut and back bruised by fall of roof in room while bringing car down to heading.
April 7	James Burchell,	Irish,	Miner,	56	M.	Delta,	Cambria,	Leg broken by fall of coal in room while loading car at face.

April	14	Walter McConnell,	American,	Miner,	15		Pennsylvania No. 33,	Cambria,	Arm badly crushed by mine cars on heading, necessitating amputation.
	15	Michael Peightal,	American,	Miner,	16		Dixon No. 1,	Indiana,	Leg broken by mine car while shifting car in room, 150 feet from face.
	27	John Kerrs,	Scotch,	Miner,	25		Pennsylvania No. 30,	Cambria,	Leg broken by mine cars on heading. Cars jumped the track.
May	4	Jess Adams,	American,	Runner,	27	M.	Penn Mary No. 2,	Indiana,	Leg broken by mine cars on heading, number seven room.
	17	Charles Payne,	American,	Runner,	22	S.	Glen Richey No. 5,	Clearfield,	Face cut and shoulder bruised by mine cars being wrecked on main heading near one right switch.
June	1	John Joseph,	American,	Miner,	41	M.	West Branch,	Cambria,	Leg and hand badly cut and bruised by fall of roof while undermining in room.
	25	Joseph Cubic,	Polish,	Miner,	38	S.	Greenwich No. 8,	Indiana,	Two ribs broken and back sprained by mine cars in room while taking car to heading.
	29	William Brown,	Scotch,	Company man,	69	M.	Glen Richey No. 5,	Clearfield,	Small bone in leg broken on heading by mine cars jumping track.
	30	Earl Snedden,	Scotch,	Miner,	22	M.	Glen Richey No. 5,	Clearfield,	Point of finger taken off by latch and car wheel on heading.
July	1	Joseph Lazoopia,	Polish,	Miner,	30	M.	Victor No. 3,	Cambria,	Back injured by fall of roof in his working place while drilling hole.
	20	Toney Grico,	Italian,	Miner,	18	S.	Penn Mary No. 5,	Indiana,	Cut about head and face by fall of coal while undermining in room face.
Oct.	3	George Barko,	Slavonian,	Miner,	27	M.	Penn Mary No. 1,	Indiana,	Leg crushed while handling loaded car on heading. Amputation was necessary.
	6	John Beaverage,	Scotch,	Runner,	26	S.	Victor No. 2,	Cambria,	Leg splintered by mine cars on heading. Cars became derailed and caught him.
	12	A. B. Gressley,	English,	Miner,	47	S.	Hines No. 1,	Indiana,	Leg broken by fall of roof in his working place turning off heading.
	26	Frank Velty,	Italian,	Miner,	36	S.	Penn Mary No. 5,	Indiana,	Leg broken by fall of coal while undermining at room face.
Nov.	3	Jobe Rolls,	American,	Miner,	35	M.	Glen Richey No. 4,	Clearfield,	Finger crushed by bumper of car while lifting it on track at room switch. Amputation was necessary.
	5	Robert Ward,	Scotch,	Driver,	17	S.	Glen Richey No. 4,	Clearfield,	Body bruised and face cut. Caught between car and side of heading while bringing trip from 2 right heading.
	10	Andrew Halick,	American,	Door-boy,	16	S.	Lancashire No. 3,	Cambria,	Leg broken by haulage rope on side track. The rope jerked on starting.
	16	William Cann,	American,	Miner,	21	S.	Rich Hill No. 2,	Cambria,	Collar bone broken and scalp wounded by fall of coal while undermining in room.
Dec.	2	Stefe Myers,	American,	Runner,	28	M.	Barr,	Indiana,	Leg broken by rope jerking over sheave wheel on haulage road.
	9	Cinderela Delnea,	Italian,	Miner,	37	M.	Penn Mary No. 1,	Indiana,	Four fingers crushed by mine cars while handling them on heading. Amputation was necessary.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 17	Frank Hadgo,	Austrian,	Miner,	30	M.	Pennsylvania No. 12,	Cambria,	Both legs broken by mine cars on heading near mouth of his room. While running car out of room another car was dropped from the room above and he was caught between the bumpers of both cars.
18	John Arlin,	Italian,	Miner,	22	S.	Penn Mary No. 5,	Indiana,	Skull fractured by fall of roof at room neck while putting car on heading.
20	Thomas Sloppy,	American,	Miner,	37	M.	Glen Richey No. 3,	Clearfield,	Collar bone broken by fall of coal while undermining in room.
20	Joseph Barnosky,	Hungarian,	Miner,	39	M.	West Branch,	Cambria,	Leg broken in room by fall of coal while loading car at face.
27	Philip Gray,	American,	Door-boy,	14	S.	Pennsylvania No. 11,	Cambria,	Arm crushed by motor. Amputation was necessary. He was running by motor to open door when he fell and the motor passed over his arm.

CONDITION OF MINES

PENNSYLVANIA COAL AND COKE COMPANY

(T. H. Watkins, Receiver)

Pennsylvania Nos. 11, 12, 13 and 20.—Located near Hastings, were in a very satisfactory condition, except No. 12, where the ventilation was weak on my last inspection, due to some changes that were being made in the air courses. Nos. 11, 12 and 13 were idle from March 1 to September 1.

Pennsylvania Nos. 21 and 22.—Located at Moss Creek, were in good condition.

Pennsylvania No 25.—In fair condition. The main heading has been in fault for over a year. Idle from March 1 to September 1.

Pennsylvania No. 26.—Was in fair condition during the latter part of the year. Sometime prior their main air course had fallen in and cut off the ventilation to such an extent that the black damp from the old workings came down to the working faces.

Pennsylvania No. 27.—The condition of this mine was not satisfactory on the upper section. The ventilation was weak, due to breaks in bottom to the lower mine, but the number of men in this section is being reduced.

Pennsylvania No. 29.—Located at St. Boniface; was in fair condition, except that the ventilation was a little weak on east section. On the evening of November 21 a fire occurred at this mine, which burned the power house and destroyed the haulage engines, air compressor and boiler connections. Operation was suspended for the balance of the year.

Pennsylvania No. 28.—In very satisfactory condition.

Pennsylvania No. 30.—Was in very satisfactory condition during the year, except on my last inspection. They had cut through to old Columbia mine and there was a little black damp from the old workings. The men were withdrawn from this section until it could be sufficiently ventilated.

Pennsylvania No. 31.—In very satisfactory condition. This mine is troubled with faults and has done very little during the year.

Pennsylvania No. 32.—In very fair condition. It is nearly exhausted.

Pennsylvania No. 33.—In good condition.

Pennsylvania No. 37.—In good condition. This mine is operated through No. 33 at the present time. A new tipple and sidings have been completed and a rope haulage is being installed; and when these improvements are made the mine will be separated from No. 33.

Pennsylvania No. 34.—In very satisfactory condition.

Pennsylvania No. 35.—In fair condition. In fault. Worked very little.

Pennsylvania No. 39.—A new mine being developed. Did not come under the law .

PENN MARY COAL COMPANY

Penn Mary No. 1 (No. 1 Works).—In very satisfactory condition.

Penn Mary Nos. 2, 3, 4 and 5 (No. 2 Works).—In satisfactory condition during the year, except that on my last inspection of No. 5 the ventilation was a little weak on the left section.

RUSSELL COAL COMPANY

Victor Nos. 24 and 25.—Located near Clymer, were in very fair condition. Main heading on No. 24 has been in fault for sometime. No. 25 is bothered considerably with rolls.

Victor No. 26.—In very satisfactory condition. Only nine men were employed during the latter part of the year. The mine is practically abandoned owing to faults and rolls. The haulage plant has been removed.

Victor No. 27.—Was in fair condition on last inspection, except on second right heading, where the ventilation was a little weak.

Victor No. 29.—In very satisfactory condition, with the exception of the roof, which is full of glazed slips for several feet above the coal. Idle from April to December.

BARNES AND TUCKER

Lancashire No. 3.—In very satisfactory condition, except that the drainage on main haulage between second and fourth left heading is defective.

Lancashire No. 6 and 7 were in fair condition. Drainage on main haulage road in No. 7 was defective. Only ribs and stumps are being worked at these mines.

Lancashire No. 10.—This mine was not in satisfactory condition on my last inspection, due to defective airways. A new slope is being made to cut off this mine.

Lancashire No. 12.—In fair condition, except on my last inspection, when the fan shaft was partly closed with ice. The fan was made reversible and this remedied the defect. The mine is now in very fair condition.

CARROLLTOWN COAL COMPANY

Victor No. 1.—Not in satisfactory condition on my last inspection and has been idle since May.

Victor Nos. 2 and 3.—In very fair condition on my last inspection.

Victor No. 4.—In very satisfactory condition.

Victor No. 6.—In fair condition on my last inspection. Prior to that the ventilation was weak at face of mine.

Victor Nos. 9 and 10.—In very fair condition on my last inspection. No. 9 has been drowned out from April to December.

EMPIRE COAL MINING COMPANY

Empire A.—Located near Barnesboro; in very fair condition on my last inspection. Prior to that the ventilation was a little weak in some parts near face of mine.

Empire P, Empire M and Empire R.—In very good condition.

CLEARFIELD BITUMINOUS COAL CORPORATION

Gazzam.—In very satisfactory condition. The fan and fan house were destroyed by fire August 16 and were replaced as soon as possible. On August 22 the tipple was burned; a temporary tipple was erected and a permanent one built later.

West Branch.—In very satisfactory condition.

Sample Run and Barr.—In good condition.

GREENWICH COAL AND COKE COMPANY

Greenwich Nos. 2 and 3.—Located at Greenwich; were in very fair condition.

Greenwich No. 4.—On my last inspection was in fair condition. Prior to that the ventilation was a little weak on face of second right section.

Greenwich No. 5.—This mine was not in satisfactory condition on my last inspection. The trolley wire had been put up the night before and the doors would not close, so the ventilation was not normal. Men were instructed to fix the doors at once.

Greenwich No. 8.—This mine is in fair condition for the number of men employed. On my last inspection the ventilating power was very limited.

STERLING COAL COMPANY

Sterling No. 1.—In fair condition, with few exceptions on left side of mine, where ventilation was a little weak at face.

Sterling No. 3.—Not in satisfactory condition on my last inspection. Ventilation was a little weak on pillar workings. Idle until June.

Sterling No. 5.—In fair condition. Idle until the latter part of June.

MADEIRA-HILL COAL MINING COMPANY

Spangler No. 1.—In fair condition, except that the drainage on haulage roads was defective, especially in wet weather.

Spangler No. 2.—This mine was not in very satisfactory condition. The drainage on haulage roads was very poor in wet weather.

Spangler Nos. 3 and 3½.—In very fair condition with few exceptions. The drainage is defective on some parts of haulage roads, especially in wet weather, due to water coming through from surface.

Spangler No. 4.—In fair condition. The development of this mine is much retarded by a fault in the main heading. Idle from April to October.

PEALE, PEACOCK AND KERR, INCORPORATED

Glen Richey Nos. 3, 4 and 5.—In very fair condition. Nos. 3 and 4 were idle from January to October.

Bloomington No. 19 A.—In good condition.

DIXON COAL COMPANY

Dixon No. 1.—In good condition.

CHERRY TREE COAL COMPANY

Emeigh Run No. 1.—Ventilation was a little weak on right section. New stoppings are being constructed and overcasts built. The left side of mine was in good condition.

Emeigh Run No. 3.—In good condition. Idle since last February.

DUNCAN AND SPANGLER COAL COMPANY

Delta.—Not in satisfactory condition on my last inspection. Ventilation was a little weak on left section near face.

Blubaker No. 13.—In fair condition. This mine is troubled by fault on face of main heading.

CYMBRIA COAL COMPANY

Cymbria Nos. 1 and 2.—In fair condition.

Cymbria No. 3.—In good condition, except on second right, where ventilation was weak at face.

HINES COAL COMPANY

Hines Nos. 1 and 2.—In fair condition on my last inspection. On previous inspection ventilation was weak near face.

ALLPORT COAL COMPANY

Allport No. 1.—In fair condition.

OAK RIDGE COAL AND COKE COMPANY

Oak Ridge No. 1.—In fair condition.

Oak Ridge No. 2.—Not in satisfactory condition. Ventilation was weak near face of main headings.

NANT Y GLO COAL MINING COMPANY

Nant Y Glo No. 2.—In fair condition, except on my last inspection the drainage was defective, due to recent heavy rains.

RICH HILL COAL COMPANY

Rich Hill Nos. 1 and 2.—In very fair condition, except in some parts of No. 2, where ventilation was a little weak on my last inspection.

WOODLAND COAL AND COKE COMPANY

Woodland Nos. 1 and 2.—In fair condition during the year, except on fourth right in No. 2 mine, where ventilation was a little weak on my last inspection.

POTTS RUN LAND COMPANY

Potts Run Nos. 2 and 3.—In fair condition on my last inspection, except that in some parts of No. 2 ventilation was a little weak. These mines were idle from April to October.

LOGAN COAL COMPANY

Logan No. 5.—In fair condition, except that on right side of mine ventilation was a little defective.

PEERLESS COAL MINING COMPANY

Peerless No. 1.—Not in satisfactory condition on my last inspection. Ventilation was weak on face of main heading.

HASTINGS COAL AND COKE COMPANY

Kinport No. 1.—In good condition.

CLEARFIELD AND CAMBRIA COAL AND COKE COMPANY

Lee Run No. 1 (Clearfield colliery).—In good condition.

OLANTA COAL MINING COMPANY

Olanta No. 1.—In good condition.

RANDOLPH AND DIXONVILLE COAL COMPANY

Randolph No. 2.—In good condition.

MORRISDALE COAL MINING COMPANY

Patton No. 1.—Was in poor condition, but they are fixing it up and making drainage. Did not come under the law.

Patton No. 2.—In fair condition. Did not come under the law.

PATTON CLAY MANUFACTURING COMPANY

Patton Clay No. 3.—In fair condition, except that the drainage in wet weather was a little defective.

MILLER RUN COAL COMPANY

Miller Run.—In very fair condition.

REED COLLIERY COMPANY

Berwindale No. 1.—In fair condition, except that the drainage on haulage is defective.

RED TOP COAL COMPANY

Red Top No. 1.—In fair condition on my last inspection. Did not come under the law during the greater part of the year.

LITTLE CREEK COAL AND COKE COMPANY

Oshanter No. 3.—Was in fair condition on my last inspection, except that the drainage on haulage road was defective in some parts.

VICTOR COAL COMPANY

Empire G.—In fair condition, except that on third left heading the ventilation was weak. Idle the first six months in the year.

M. J. KELLY AND COMPANY, INCORPORATED

Burnadette.—In good condition.

CHESTON COAL COMPANY

Cheston No. 1.—In fair condition. Did not come under the law until the latter part of the year.

MOSIER AND JOSE

Wilson Run.—In good condition. Idle the greater part of the year and did not come under the law while in operation.

BELLMORE COAL COMPANY

Klondike.—This mine was idle and worked only eighteen days in the latter part of December. No inspection was made during the year.

IMPROVEMENTS

PENNSYLVANIA COAL AND COKE COMPANY

(T. H. Watkins, Receiver)

Pennsylvania No. 22.—A new air shaft, 8 x 10 feet and 40 feet deep, was put down, and a 12 x 5 foot Stine fan placed thereon for ventilation.

Pennsylvania No. 28.—A new drift was put in near the face of second right main heading for traveling way to keep the employes off the haulage road.

Pennsylvania No. 29.—A new power house, haulage engine and compressor were installed to replace those destroyed by fire on the evening of November 21.

RUSSELL COAL COMPANY

Victor No. 24.—A new drift opening, 7½ x 6 x 200 feet long, was made for a traveling way to keep employes off haulage roads.

BARNES AND TUCKER

Lancashire No. 12.—A new shaft, 8 x 8 feet and 110 feet deep, was put down at face of mine for ventilation, and a 16 foot Brazil fan placed thereon, driven by a 35-horse-power electric motor, General Electric type. A new slope is being driven to cut off No. 10 mine and to get in ahead of fault.

CARROLLTOWN COAL COMPANY

Victor No. 2.—Installed one Ingersoll compressor, 28 x 32, and one Erie boiler, 80 horse-power, and two Erie boilers, 150 horse-power each.

Victor Nos. 2 and 3.—A new fan drift, 7½ x 6 x 250 feet long, was made and a 20-foot Pollock fan installed to ventilate these mines.

CLEARFIELD BITUMINOUS COAL CORPORATION

Gazzam.—A new fan house and tipple built to replace those destroyed by fire on August 16 and 26.

West Branch.—A new slope opening, 6 x 9 feet and 500 feet deep, has been made near face of mine for ventilation and traveling way. This will be a great improvement to the mine, as the other openings are two miles from this point.

MADEIRA-HILL COAL MINING COMPANY

Spangler No. 4.—A haulage plant was installed during July and August, which consists of two seven-ton motors, one Ball engine, one K. W. generator and two 115 horse-power and one 150 horse-power Phoenix boilers.

GREENWICH COAL AND COKE COMPANY

Greenwich No. 3.—Installed endless rope haulage plant to displace motor haulage.

Greenwich No. 5.—Installed two motors to displace mule haulage. Power taken from No. 8 plant.

PEALE, PEACOCK AND KERR, INCORPORATED

Glen Richey No. 5.—A 20-foot Brazil fan is being installed to displace a 10-foot Stine and will be completed early in 1910.

CYMBRIA COAL COMPANY

Cymbria Nos. 1 and 2.—One 150 horse-power Erie boiler was installed.

Cymbria No. 3.—One new Sirocco fan, 7 x 6, was installed.

REED COLLIERY COMPANY

Berwindale.—Installed one 80 horse-power boiler and one 7-foot Stine fan.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Miners Hall, Patton, Pa., April 6, 7, 8 and 9.

The Examining Board was composed of Alexander Monteith, Mine Inspector; T. A. Estep, Superintendent, and Timothy McCarthy, Mine Foreman.

There were forty-two applicants, thirty-eight for certificates as Mine Foremen, and four for certificates as Fire Bosses. The following persons passed a satisfactory examination and were granted certificates:

Mine Foremen—First Grade

Richard A. Morgan, William Brown.

Mine Foremen—Second Grade

Edward W. Walsh, H. L. Williams, Frederick Vinton, H. F. Dorr, Charles L. Davies.

Fire Bosses

Martin Narin, W. H. Davies.

SIXTEENTH DISTRICT

FAYETTE, WASHINGTON AND GREENE COUNTIES

Brownsville, Pa., February 19, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report as Inspector of Mines for the Sixteenth Bituminous District, for the year ending December 31, 1909, in compliance with the Acts of Assembly, approved May 15, 1893, and April 14, 1903.

I was transferred to this district July 1, 1909, from the First District.

The report contains the usual statistical information.

Respectfully submitted,

W. H. HOWARTH,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	51
Number of mines in operation,	46
Number of tons of coal shipped to market,	1,210,215
Number of tons used at mines for steam and heat,	179,326
Number of tons sold to local trade and used by employes,	51,399
Number of tons used in the manufacture of coke,	5,641,107
Number of tons of coal produced,	7,082,047
Number of tons of coke produced,	3,835,918
Number of coke ovens,	8,345
Number of coke ovens in operation,	7,784
Number of tons of coal produced by pick mining,	5,054,513
Number of tons produced by compressed air machines,	1,430,727
Number of tons produced by electrical machines,	596,807
Number of persons employed inside of mines,	6,585
Number of persons employed outside including coke workers,	3,459
Number of persons employed at manufacture of coke,	1,983
Number of fatal accidents inside of mines,	29
Number of fatal accidents outside,	4
Number of non-fatal accidents inside of mines,	53
Number of non-fatal accidents outside,	———
Number of tons of coal produced per fatal accident inside,	244,208
Number of persons employed per fatal accident inside,	227
Number of persons employed per fatal accident outside,	865
Number of persons employed per non-fatal accident inside,	124
Number of persons employed per non-fatal accident outside,	———
Number of wives made widows,	18
Number of children made orphans,	46
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	9
Number of compressed air locomotives used inside,	26
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	30
Number of electric motors used outside,	7
Number of fans in use,	44
Number of furnaces in use,	1
Number of gaseous mines in operation,	36
Number of non-gaseous mines in operation,	10
Number of new mines opened,	8
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
H. C. Frick Coke Company,	2,802,007
Consolidated Connellsville Coke Company,	449,992
Brier Hill Coke Company,	406,377
Taylor Coal and Coke Company,	377,950
Orient Coke Company,	356,874
Tower Hill Connellsville Coke Company,	355,152
Connellsville Central Coke Company,	344,452
Thompson Connellsville Coke Company,	320,240
Republic Iron and Steel Company,	190,727
Sunshine Coal and Coke Company,	171,740
Century Coke Company,	158,253
Struthers Coal and Coke Company,	142,731
Woodside Coke Company,	124,560
McKeefrey Coal Company,	120,571
Monongahela River Consolidated Coal and Coke Company,	115,180
Dilworth Coal Company,	113,941
Bessemer Coke Company,	113,201
Clyde Coal Company,	103,778
Prospect Coal and Coke Company,	103,174
LaBelle Coke Company,	70,090
Vesta Coal Company,	41,918
Hustead-Semans Coal and Coke Company,	25,602
Jacobs Creek Coal and Coke Company,	23,285
Brownsville Coke Company,	13,672
Union Connellsville Coke Company,	12,281
Dunlap Connellsville Coke Company,	10,858
Champion Connellsville Coke Company,	10,510
W. Harry Brown,	2,931
Total,	7,082,047

Production by Counties

Fayette,	6,699,209
Washington,	268,697
Greene,	113,941
Total,	7,082,047

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
H. C. Frick Coke Co.,	12	1	13	19	.....	19	233,501	147,474	2,220	951	3,171	185	951	117	.....
Consolidated Connellsville Coke Co.,	1	2	3	1	.....	1	449,992	449,992	341	245	586	341	122	341	.....
Brier Hill Coke Co.,	1	.....	1	4	.....	4	406,377	101,594	430	218	648	430	.....	107	.....
Taylor Coal and Coke Co.,	1	.....	1	1	.....	1	377,950	377,950	225	121	346	225	.....	225	.....
Orient Coke Co.,	1	.....	1	.....	.....	.....	356,874	.....	365	199	564	365	.....	.....	.....
Tower Hill Connellsville Coke Co.,	.....	.....	.....	3	.....	3	.....	118,384	365	274	639	.....	.....	122	.....
Connellsville Central Coke Co.,	.....	.....	.....	3	.....	3	.....	114,817	255	150	405	.....	.....	85	.....
Thompson Connellsville Coke Co.,	4	.....	4	3	.....	3	80,060	106,747	550	184	734	137	.....	183	.....
Republic Iron and Steel Co.,	2	.....	2	1	.....	1	95,363	190,727	180	124	304	90	.....	180	.....
Sunshine Coal and Coke Co.,	1	.....	1	.....	.....	.....	171,740	.....	106	86	192	106	.....	.....	.....
Century Coke Co.,	2	.....	2	3	.....	3	79,126	52,751	144	73	217	72	.....	48	.....
Struthers Coal and Coke Co.,	1	.....	1	1	.....	1	142,731	142,731	119	77	196	119	.....	119	.....
Woodside Coke Co.,	.....	.....	.....	1	.....	1	.....	124,560	114	112	226	.....	.....	114	.....
Monongahela River Consolidated Coal and Coke Co.,	.....	.....	.....	1	.....	1	.....	115,180	283	21	304	.....	.....	283	.....
Bessemer Coke Co.,	3	.....	3	1	.....	1	37,733	113,201	160	122	282	53	.....	160	.....
Clyde Coal Co.,	.....	.....	.....	3	.....	3	.....	34,593	70	19	89	.....	.....	23	.....
Prospect Coal and Coke Co.,	.....	.....	.....	1	.....	1	.....	103,174	50	41	91	.....	.....	50	.....
LaBelle Coke Co.,	.....	.....	.....	4	.....	4	.....	17,522	85	78	163	.....	.....	21	.....
Vesta Coal Co.,	.....	.....	.....	2	.....	2	.....	20,959	95	42	137	.....	.....	47	.....
Dunlap Connellsville Coke Co.,	.....	1	1	.....	.....	.....	.....	.....	13	7	20	.....	7	.....	.....
Champion Connellsville Coke Co.,	.....	.....	.....	1	.....	1	.....	10,510	26	18	44	.....	.....	26	.....
Miscellaneous Companies,	.....	.....	.....	.....	.....	.....	.....	.....	389	297	686	.....	.....	.....	.....
Totals and averages for district,	29	4	33	53	.....	53	244,208	133,623	6,585	3,459	10,044	227	865	124	.....

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	1	----	----	----	----	----	----	----	----	1	3.45
Falls of slate,	1	1	1	2	----	----	3	----	----	2	3	----	13	44.82
Falls of roof,	----	----	----	----	----	----	----	----	----	----	----	1	1	3.45
Mine cars,	----	1	1	----	----	1	1	1	2	----	3	----	10	34.48
Falling into shafts,	----	----	----	----	----	----	----	1	----	----	1	----	2	6.90
Miscellaneous,	----	1	----	----	----	----	----	----	----	1	----	----	2	6.90
Totals,	1	3	2	3	----	1	4	2	2	3	7	1	29	100.00
Causes of Accidents Outside														
Machinery,	----	----	----	----	1	----	----	----	----	----	----	1	2	50.00
Miscellaneous,	----	----	----	----	----	1	----	----	----	1	----	----	2	50.00
Totals,	----	----	----	----	1	1	----	----	----	1	----	1	4	100.00
Grand totals inside and outside,	1	3	2	3	1	2	4	2	2	4	7	2	33	

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	----	----	----	1	----	1	----	----	2	3.77
Falls of slate,	1	2	4	1	1	----	3	----	4	2	1	1	20	37.75
Falls of roof,	----	----	----	----	----	----	----	----	----	----	----	1	1	1.88
Mine cars,	2	----	3	2	1	3	1	----	1	3	1	4	21	39.63
Blasts, premature and otherwise,	----	----	----	----	----	2	----	----	----	----	----	2	4	7.55
Mules,	----	----	----	1	----	----	----	----	----	----	----	----	1	1.88
Machinery,	----	----	----	----	1	----	1	----	----	----	----	----	2	3.77
Miscellaneous,	----	2	----	----	----	----	----	----	----	----	----	----	2	3.77
Totals,	3	4	7	4	3	5	5	1	5	6	2	8	53	100.00
Causes of Accidents Outside (No accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Mine foremen,		1											1
Miners	1		1	3			3			2	2	1	13
Drivers and runners,		1					1	1			1		4
Haulage men,									1				1
Hitchers,									1				1
Platticemen,											1		1
Doorboys and helpers,		1											1
Laborers,			1			1		1			2		5
Cagers,											1		1
Muckers,										1			1
Totals,	1	3	2	3		1	4	2	2	3	7	1	29
Outside													
Foremen,												1	1
Coke employes,					1					1			2
Laborers,						1							1
Totals,					1	1				1		1	4
Grand totals inside and outside,	1	3	2	3	1	2	4	2	2	4	7	2	33

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,										1			1
Fire bosses,						1							1
Miners,	2	2	4	1	1	2	4	1	2	2	1	4	26
Laborers,					2	1						1	4
Machine loaders,			1						1	1			3
Drivers and runners,		1	1	1			1			1	1	1	7
Doorboys and helpers,			1	1									2
Greasers,				1					2				3
Shotfirers,						1						1	2
Motormen,										1			1
Snappers,												1	1
Rope tenders,		1											1
Cagers,	1												1
Totals,	3	4	7	4	3	5	5	1	5	6	2	8	53
Outside (No accidents)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	1	1	----	----	1	1	----	1	3	1	1	10
Irish,	----	----	----	----	----	----	----	1	----	----	----	----	1
German,	----	----	----	----	----	1	----	----	----	----	----	----	1
Polish,	----	1	----	----	----	----	1	----	----	----	3	----	5
Hungarian,	1	1	----	1	1	----	----	----	----	----	----	----	4
Italian,	----	----	----	----	----	----	1	----	----	----	----	----	1
Slavonian,	----	----	1	2	----	----	1	1	1	----	2	----	8
Austrian,	----	----	----	----	----	----	----	----	----	1	----	1	2
Croatian,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals,	1	3	2	3	1	2	4	2	2	4	7	2	33

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	2	1	----	----	1	----	----	----	----	----	----	5
English,	----	----	----	----	----	1	----	----	----	1	----	----	2
Polish,	----	----	1	1	----	----	1	----	1	1	----	----	5
Hungarian,	1	----	----	1	----	----	----	----	1	1	----	----	4
Italian,	----	----	----	2	----	----	1	----	1	----	----	2	6
Slavonian,	1	2	4	----	2	2	2	----	2	2	2	6	25
Austrian,	----	----	----	----	----	1	1	1	----	----	----	----	3
Russian,	----	----	1	----	1	----	----	----	----	----	----	----	2
Croatian,	----	----	----	----	----	----	----	----	----	1	----	----	1
Totals,	3	4	7	4	3	5	5	1	5	6	2	8	53

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
H. C Frick Coke Co.																
Buffington,	Shaft,	Gaseous,	Fan,	16	10	4	120	1.5	Capell,		----	6	201,160	81,300	205,000	289
Bridgeport,	Shaft,	Gaseous,	Fan,	20	8	5	104	2.6	Capell,		----	10	146,250	141,100	150,250	313
Dearth No. 1,	Drift,	Non-gas.	Fan,	20	6	5	45	.5	Guibal,		----	2	80,000	23,000	84,000	100
Dearth No. 2,	Drift,	Non-gas.	Fan,	16	5	4	65	.5	Guibal,		----	3	56,000	54,000	60,000	83
Edenborn,	Shaft,	Gaseous,	Fan,	26	7	6.5	82	3	Clifford,		----	8	292,500	152,500	301,800	312
Filbert Nos. 1 and 2,	Shaft,	Gaseous,	Fan,	12	3	3	100	.5	†	Steam,	----	2	18,900	15,000	20,900	32
Gates No. 1,	Shaft,	Gaseous,	Fan,	13	5	2.5	150	2	Capell,		----	3	88,000	52,000	90,000	110
Gates No. 2,	Shaft,	Gaseous,	Fan,	13	5	2.5	150	2.6	Capell,		----	5	98,000	91,800	108,000	161
Lambert,	Shaft,	Gaseous,	Fan,	25	7	6.5	95	3.2	Capell,		----	8	258,600	118,300	260,400	273
Palmer,	Shaft,	Gaseous,	Fan,	26	7	6	50	.8	Capell,		----	2	80,500	30,000	85,500	185
Ronco,	Shaft,	Gaseous,	Fan,	25	9	5.5	80	2.5	Robinson,		----	9	225,000	128,900	232,000	316
Ralph,	Shaft,	Gaseous,	Fan,	26	7	7.6	100	.5	Capell,		----	3	41,000	25,500	44,000	46
Consolidated Connellsville Coke Co.																
*Donald No. 1,	Slope,	Gaseous.	Fan,	----	----	----	----	----	----	----	----	1	17,000	11,250	20,500	62
Donald No. 2,	Drift,			20	6	6.5	80	1.5	Guibal,	Electricity,	----	2	74,000	41,250	77,500	160
Sterling,	Shaft,			18	8	2.5	110	3	Capell,	Steam,	----	4	136,750	73,000	186,750	81
Virginia,	Slope,			12	5	5.5	100	.5	Robinson,	Steam,	----	2	42,000	29,500	43,000	38

*Ventilated by fan at Donald No. 2.
†Temporary fan.

Brier Hill Coke Co.																
Brier Hill,	Shaft,	Gaseous,	Fan,	18	8	6	100	2.2	Capell,	Steam,		5	170,800	97,500	175,800	430
Taylor Coal and Coke Co.																
Searight,	Shaft,	Gaseous,	Fan,	18	8	7	75	1	Capell,	Steam,		6	242,500	77,500	245,000	225
Orient Coke Co.																
Orient,	Shaft,	Gaseous,	Fan,	20	8	7	85	1.6	Capell,	Steam,		5	170,400	70,000	185,000	365
Tower Hill Connellsville Coke Co.																
Tower Hill No. 1,	Shaft,	Gaseous,	Fan,	26	7	6.5	35	.5	Lepley,	Steam,		2	68,200	32,400	68,400	174
Tower Hill No. 2,	Shaft,	Gaseous,	Fan,	26	7	6.5	45	.6	Lepley,	Steam,		2	121,800	36,000	126,800	191
Connellsville Central Coke Co.																
Low Phos No. 1,	Slope,	Non-gas.	Fan,	20	8	5	60	.5	Lepley,	Steam,		1	54,000	15,000	58,000	63
Low Phos No. 2,	Drift,	Non-gas.	Fan,	12	5	4	34	.1	Lepley,	Compressed Air.		1	24,000	18,000	26,500	52
Herbert,	Shaft,	Gaseous,	Fan,	18	8	4	70	1.2	Capell,	Steam,		4	105,000	73,500	109,000	140
Thompson Connellsville Coke Co.																
Thompson No. 1,	Shaft,	Gaseous,	Fan,	18	8	8	80	1.3	Capell,	Steam,		5	154,250	75,500	159,250	278
Thompson No. 2,	Shaft,	Gaseous,	Fan,	18	8	8	85	1	Capell,	Steam,		4	125,150	58,500	129,150	272
Republic Iron and Steel Co.																
Republic,	Shaft,	Gaseous,	Fan,	20	8	9.5	85	1.8	Robinson,	Steam,		5	143,000	70,100	148,000	180
Sunshine Coal and Coke Co.																
Teresa,	Drift,	Non-gas.	Fan,	12	4	3	100	.1	Capell,	Steam,		2	27,000	21,000	29,000	61
Eleanor,	Drift,	Non-gas.	Fan,	16	4	4.5	40	.2	Brazil,	Steam,		1	24,000	16,000	26,000	45
Century Coke Co.																
Century,	Slope,	Gaseous,	Fan,	12.7	4.7	4.3	124	.9	Capell,	Electricity,		4	96,000	54,000	99,000	144
Struthers Coal and Coke Co.																
Struthers,	Shaft,	Gaseous,	Fan,	12	7	3	140	2	Capell,	Steam,		3	99,000	34,000	100,000	119
Woodside Coke Co.																
‡Martin,	Drift,	Gaseous,	Fan,	24	6	5	42	.1	Cole,	Electricity,		6	56,000	37,400	59,000	114
McKeefrey Coal Co.																
McKeefrey,	Drift,	Gaseous,	Fan,	12	4	3	60	.9	Capell,	Steam,		2	67,200	27,000	69,000	109

‡Fan burned down December 26.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Monongahela River Consolidated Coal and Coke Co.																
Crowthers,	Drift,	Gaseous,	Fan,	20	6.7	6	74	1.6	Guibal,	Steam,		4	81,000	47,000	85,000	283
Dilworth Coal Co.																
Dilworth,	Shaft,	Gaseous,	Fan,	14	8	4	100	1.2	Capell,	Steam,		3	60,000	34,500	64,000	83
Bessemer Coke Co.																
Millsboro,	Slope,	Gaseous,	Fan,	20	5	5	40	.5	Cole,	Steam,		2	74,000	27,000	79,000	160
Clyde Coal Co.																
Clyde,	Drift,	Gaseous,	Fan,	16	6	7.5	80	1.2	Capell,	Steam,		4	71,000	53,100	75,000	70
Prospect Coal and Coke Co.																
Solon,	Slope,	Non-gas.	Fan,	12	2	3.5	84	.3	Brazil,	Steam,		1	23,100	10,500	25,100	50
LaBelle Coke Co.																
LaBelle,	Drift,	Gaseous,	Fan,	10	2	2.5	200	.5	Brazil,	Electricity,		2	59,200	22,020	60,000	85
Vesta Coal Co.																
Vesta No. 5,	Drift,	Gaseous,	Fan,	6	3	1.8	200	.2	Jeffrey,	Electricity,		1	60,000	20,000	64,000	95
Hustead-Semans Coal and Coke Co.																
Hustead,	Slope,	Gaseous,	Fan,	16	7	4.5	60	.4	Capell,	Steam,		3	84,000	41,500	87,000	100

Jacobs Creek Coal and Coke Co. Jacobs Creek,	Drift,	Non-gas.	Furnace,								30	1	5,000	5,000	6,000	17
Brownsville Coke Co. Ganns,	Drift,	Non-gas.	Fan,	8	1.6	1.5	200	1	Stine,	Gas,		1	56,000	18,000	60,000	36
Union Connellsville Coke Co. Elizabeth,	Shaft	Gaseous,	Fan,	15	6	5	30	.1	Lepley,	Steam,		1	42,000	15,000	45,000	44
Dunlap Connellsville Coke Co. Garwood,	Shaft,	Gaseous,	Fan,	13	7	6	60	.5	Capell,	Steam,		1	30,000	18,000	31,500	13
Champion Connellsville Coke Co. Champion,	Drift,	Non-gas.	Fan,	12	4	2.9	82	.1	Brazil,	Gas,		1	21,600	12,000	24,000	26

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of seam in inches: Thickest	Height of seam in inches: Thinnest	Approximate number of tons produced by machines
H. C. Frick Coke Co.,	Buffington,	Shaft,	Gaseous,	2	Compressed Air,	Pittsburg,	96	108	84	21,282
	Bridgeport,			9	Electricity,		90	98	60	110,594
	Edenborn,			8	Compressed Air,		94	110	78	92,398
	Filbert No. 1,			2			105	111	93	1,252
	Gates Nos. 1 and 2,			14			98	106	87	154,213
	Palmer,			4			96	108	84	5,441
	Ronco,			13			96	96	96	242,973
Totals,				52						628,153
Consolidated Connellsville Coke Co.,	Donald Nos. 1 and 2,	Slope, Drift,	Gaseous,	2	Electricity,	Pittsburg,	92	112	72	9,797
	Sterling,	Shaft,		6	Compressed Air,	Pittsburg,	98	112	84	102,427
Totals,				8						112,224
Taylor Coal and Coke Co.,	Searight,	Shaft,	Gaseous,	4	Compressed Air,	Pittsburg,	113	118	108	130,000
				1	Electricity,					
				5						

Tower Hill Connellsville Coke Co.,	Tower Hill No. 1,	Shaft,	Gaseous,	9	Compressed Air,	Pittsburg,	96	108	84	109,548
	Tower Hill No. 2,			12			96	108	84	125,964
Totals,				21						235,512
Thompson Connellsville Coke Co.,	Thompson No. 1,	Shaft,	Gaseous,	23	Compressed Air,	Pittsburg,	84	108	60	164,102
	Thompson No. 2,			19			84	108	60	156,138
Totals,				42						320,240
Republic Iron and Steel Co.,	Republic,	Shaft,	Gaseous,	12	Compressed Air,	Pittsburg,	90	120	60	76,083
Monongahela River Consolidated Coal and Coke Co.,	Crowthers,	Drift,	Gaseous,	8	Electricity,	Pittsburg,	75	80	71	101,725
Dilworth Coal Co.,	Dilworth,	Shaft,	Gaseous,	6	Electricity,		88	92	84	88,941
Bessemer Coke Co.,	Millsboro,	Slope,	Gaseous,	12	Compressed Air,		66	78	54	93,304
Clyde Coal Co.,	Clyde,	Drift,	Gaseous,	9	Electricity,		78	90	66	103,742
LaBelle Coke Co.,	LaBelle,	Drift,	Gaseous,	6	Electricity,	Pittsburg,	88	92	84	70,090
Vesta Coal Co.,	Vesta No, 5,	Drift,	Gaseous,	4	Electricity,		51	78	24	41,918
Hustead-Semans Coal and Coke Co.,	Hustead,	Slope,	Gaseous,	10	Compressed Air,		87	102	72	25,602
Grand totals,				195						2,027,534

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
H. C. Frick Coke Co. Buffington, Bridgeport, Dearth Nos. 1 and 2, Edenborn, *Filbert Nos. 1 and 2, Gates Nos. 1 and 2, Lambert, *Palmer, Ronco, *Ralph, *Sarah,	Fayette,	W. H. Clingerman,	Scottdale,	James Hart, W. C. Hood, R. S. Skemp, J. F. McCracken, A. F. Allard, H. N. Boyd, H. N. Boyd, D. H. Parker, C. K. McCaffrey, A. F. Allard,	New Salem, Brownsville, Uniontown, R. F. D. No. 4 Edenborn, New Salem, Adah, Lamberton, Adah, Ronco, New Salem,	Monongahela
Consolidated Connellsville Coke Co. Donald Nos. 1 and 2, Sterling, Virginia,	Fayette,	C. M. Shank,	Mount Sterling,	C. M. Shank,	Mount Sterling,	Monongahela
Brier Hill Coke Co., Brier Hill,	Fayette,	Thomas McCaffrey,	Brier Hill,	Thomas McCaffrey,	Brier Hill,	Monongahela
Taylor Coal and Coke Co. Searight,	Fayette,	D. B. Stauft,	Uniontown,	J. J. McIntyre,	Uniontown,	Monongahela
Orient Coke Co. Orient,	Fayette,	O. W. Kennedy,	Uniontown,	Charles Opperman,	Orient,	Monongahela
Tower Hill Connellsville Coke Co. Tower Hill Nos. 1 and 2,	Fayette,	L. W. Fogg,	Uniontown,	J. R. Thompson,	Republic,	Monongahela
Connellsville Central Coke Co. Low Phos Nos. 1 and 2, Herbert,	Fayette,	John C. Neff,	Pittsburg,	C. E. Bortz,	Uniontown, R. F. D. No. 4	Monongahela

*New mine.

Thompson Connellsville Coke Co.						
Thompson Nos. 1 and 2,	Fayette,	John Harding,	New Salem,	John Harding,	New Salem,	Monongahela
Republic Iron and Steel Co.						
Republic,	Fayette,	C. T. Fairbairn,	Pittsburg,	W. H. E. Royce,	Republic,	Monongahela
Sunshine Coal and Coke Co.						
Teresa,	Fayette,	Francis J. Rocks	Uniontown,	M. J. Callahan,	Masontown,	Monongahela
Eleanor,				W. J. Reilley,	Uniontown, R. F. D. 4,	
Century Coke Co.						
Century,		C. E. Lenhart,	Uniontown,	D. C. Sheets,	Brownsville,	Monongahela
Struthers Coal and Coke Co.						
Struthers,		George L. Fairbanks	Cleveland, Ohio,	John Shultz,	Fairbanks,	Monongahela
Woodside Coke Co.						
Martin,	Fayette,	C. T. Fairbairn,	Pittsburg,	H. M. Wilson,	Martin,	Monongahela
McKeefrey Coal Co.						
McKeefrey,		James Henderson,	Martin,	James Henderson,	Martin,	Monongahela
Monongahela River Consolidated Coal and Coke Co.						
Crowthers,		S. A. Scott,	Pittsburg,	John G. Nelson,	LaBelle,	Monongahela
Dilworth Coal Co.						
Dilworth,	Greene,	H. P. Dilworth,	Pittsburg,	James Black,	Rices Landing,	P. V. and C.
Bessemer Coke Co.						
Millsboro,	Washington,	R. L. Martin, Sr.,	Pittsburg,	J. C. Smith,	Millsboro,	P. V. and C.
Clyde Coal Co.						
Clyde,	Washington,	James G. Geegan,	Pittsburg,	W. C. Gartley,	Fredericktown,	P. V. and C.
Prospect Coal and Coke Co.						
Solon,	Fayette,	W. A. Stone,	Uniontown,	J. F. Dawson,	Uniontown, R. F. D. 4	Monongahela
LaBelle Coke Co.						
LaBelle,	Fayette,	R. M. McCasland,	Steubenville, Ohio,	Alex. Peterson,	LaBelle,	Monongahela
Vesta Coal Co.						
Vesta No. 5,	Washington,	R. B. Drum,	California,	Harry Drum,	Coal Center,	P. V. and C.

TABLE 1—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Hustead-Semans Coal and Coke Co.						
Hustead,	Fayette,	A. M. Hustead,	East Millsboro,	A. M. Hustead,	East Millsboro,	Monongahela
Jacobs Creek Coal and Coke Co.						
Jacobs Creek,	Fayette,	William Beale,	Masontown,	William Beal,	Masontown,	Monongahela
Brownsville Coke Co.						
Ganns,	Fayette,	J. W. Abraham,	Uniontown,	John N. King,	Brownsville,	Monongahela
Union Connellsville Coke Co.						
*Elizabeth,	Fayette,	William Allison,	Uniontown,	J. W. Bingaman,	Brownsville, R. F. D. 20	Monongahela
Dunlap Connellsville Coke						
Garwood,	Fayette,	George W. Campbell	Connellsville,	John O. Durkee,	Brownsville, R. F. D. 20	Monongahela
Champion Connellsville Coke Co.						
Champion,	Fayette,	M. F. Pickard,	Brownsville,	M. F. Pickard,	Brownsville,	Monongahela
W. Harry Brown						
*Alicia,	Fayette,					Monongahela
Isabella Connellsville Coke Co.						
*Isabell,	Fayette,	William Duncan,	East Riverside,	William Duncan,	East Riverside,	Monongahela
W. J. Rainey Coke Co.						
*Allison,	Fayette,					Monongahela

*New mine.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
H. C. Frick Coke Co.																
Buffington,	Fayette,	2,458	7,632	2,517	413,939	426,546	275,959	426	289	430	3	3	.....	.....	11,250	63
Bridgeport,	Fayette,	229,424	7,479	1,478	96,023	334,404	64,015	100	308	376	4	3	.....	.....	30,960	5
Dearth Nos. 1 and 2,	Fayette,	.....	2,101	2,322	222,393	226,816	148,262	250	288	235	....	2	.....	.....	39,250	22
Edenborn,	Fayette,	.....	13,420	3,546	387,463	404,429	258,309	500	289	479	2	1	.....	.....	25,320	60
Filbert Nos. 1 and 2,	Fayette,	8,524	1,672	392	.....	10,588	.....	.....	327	54	....	....	500	.....	500	6
Gates Nos. 1 and 2,	Fayette,	380,768	20,075	1,697	.....	402,540	.....	.....	307	344	1	....	.....	.....	45,050	52
Lambert,	Fayette,	941	14,918	2,578	400,035	418,472	266,690	462	288	437	1	5	.....	.....	.....	53
Palmer,	Fayette,	16,447	2,783	399	.....	19,629	.....	.....	341	247	1	3	.....	.....	3,000	6
Ronco,	Fayette,	175,132	24,642	1,520	326,916	528,210	217,944	350	306	506	1	2	.....	.....	42,852	75
Ralph,	Fayette,	25,064	5,073	236	.....	30,373	.....	.....	218	63	....	....	.....	.....	.....	8
Totals,		838,758	99,795	16,685	1,846,769	2,802,007	1,231,179	2,088	.....	3,171	13	19	500	.....	198,182	350
Consolidated Connellsville Coke Co.																
Donald Nos. 1 and 2,	Fayette,	2,010	3,905	1,480	299,266	306,661	202,500	402	288	371	1	1	.....	.....	85,831	44
Sterling,	Fayette,	.....	63	1,042	118,747	119,852	80,747	290	295	141	1	....	.....	.....	33,334	14
Virginia,	Fayette,	3,837	1,200	612	17,830	23,479	12,124	160	155	74	1	....	.....	.....	6,670	10
Totals,		5,847	5,168	3,134	435,843	449,992	295,371	852	.....	586	3	1	.....	.....	125,835	68
Brier Hill Coke Co.																
Brier Hill,	Fayette,	.....	5,278	2,207	398,892	406,377	270,918	470	311	648	1	4	.....	.....	360	55

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Taylor Coal and Coke Co.																
Searight,	Fayette,	.....	1,650	1,300	375,000	377,950	250,000	358	307	346	1	1	.....	.....	50,000	40
Orient Coke Co.																
Orient,	Fayette,	.....	2,664	3.466	350,744	356,874	267,636	480	288	564	1	....	.....	175	15,100	47
Tower Hill Connellsville Coke Co.																
Tower Hill No. 1,	Fayette,	.....	572	916	152,041	153,529	102,137	285	259	321	....	....	.....	.....	12,690	30
Tower Hill No. 2,		.....	701	865	200,057	201,623	134,934	350	286	318	....	3	.....	.....	15,845	35
Totals,		.....	1,273	1,781	352,098	355,152	237,071	635	.....	639	....	3	.....	.....	28,535	65
Connellsville Central Coke Co.																
Low Phos Nos. 1 and 2,	Fayette,	.....	2,654	1,024	202,276	205,954	131,479	250	302	212	....	2	.....	.....	24,000	22
Herbert,		.....	5,308	550	132,640	138,498	86,216	100	311	193	....	1	.....	.....	30,000	25
Totals,		.....	7,962	1,574	334,916	344,452	217,695	350	.....	405	....	3	.....	.....	54,000	47
Thompson Connellsville Coke Co.																
Thompson No. 1,	Fayette,	.....	7,807	2,417	153,878	164,102	104,739	400	256	372	2	3	.....	.....	30,000	49
Thompson No. 2,		.....	10,565	3,032	142,541	156,138	96,927	400	256	362	2	....	.....	.....	25,000	56
Totals,		.....	18,372	5,449	296,419	320,240	201,666	800	.....	734	4	3	.....	.....	55,000	105

Republic Iron and Steel Co.																
Republic,	Fayette,	.....	2,348	711	187,668	190,727	131,367	398	261	304	2	1	.....	.....	25,860	27
Sunshine Coal and Coke Co.																
Teresa,	Fayette,	1,050	2,880	3,600	83,850	91,380	55,900	150	311	107	1	....	.....	.....	35,000	20
Eleanor,		.....	1,800	2,510	76,050	80,360	50,700	80	311	85	....	....	.....	.....	30,000	11
Totals,		1,050	4,680	6,110	159,900	171,740	106,600	230	.....	192	1	....	.....	.....	65,000	31
Century Coke Co.																
Century,	Fayette,	.....	135	444	157,674	158,253	105,116	205	290	217	2	3	.....	.....	26,000	16
Struthers Coal and Coke Co.																
Struthers,	Fayette,	105	1,872	670	140,084	142,731	115,228	200	299	196	1	1	.....	.....	26,000	22
Woodside Coke Co.																
Martin,	Fayette,	.....	1,786	291	122,483	124,560	96,750	194	265	226	....	1	.....	.....	2,000	25
McKeefrey Coal Co.																
McKeefrey,	Fayette,	410	500	2,478	117,183	120,571	74,927	202	279	209	....	....	.....	.....	18,000	18
Monongahela River Consolidated Coal and Coke Co.																
Crowthers,	Fayette,	112,600	2,580	.....	.....	115,180	.....	.....	168	304	....	1	.....	.....	7,078	15
Dilworth Coal Co.																
Dilworth,	Greene,	106,741	5,700	1,500	.....	113,941	.....	.....	289	95	....	....	5,000	.....	5,000	10
Bessemer Coke Co.																
Millsboro,	Washington,	.....	2,024	503	110,674	113,201	66,510	257	293	282	3	1	.....	.....	38,000	13
Clyde Coal Co.																
Clyde,	Washington,	99,487	3,833	96	362	103,778	217	2	270	89	....	3	.....	.....	12,150	8
Prospect Coal and Coke Co.																
Solon,	Fayette,	.....	238	502	102,434	103,174	68,670	100	293	91	....	1	.....	.....	24,000	4
LaBelle Coke Co.																
LaBelle,	Fayette,	.....	1,598	824	67,668	70,090	42,208	200	145	163	....	4	1,200	100	5,500	14
Vesta Coal Co.																
Vesta No. 5,	Washington,	40,598	1,233	87	.....	41,918	.....	.....	250	137	....	2	.....	.....	15,000	6
Hustead-Semans Coal and Coke Co.																
Hustead,	Fayette,	2,643	3,798	668	18,493	25,602	11,550	100	68	188	....	....	.....	.....	4,080	13

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Jacobs Creek Coal and Coke Co.																
Jacobs Creek,	Fayette,	----------	675	110	22,500	23,285	16,875	44	225	44	----	----	--------	--------	3,000	8
Brownsville Coke Co.																
Ganns,	Fayette,	----------	--------	--------	13,672	13,672	10,264	50	135	57	----	----	--------	--------	1,650	4
Union Connellsville Coke Co.																
Elizabeth,	Fayette,	----------	2,500	349	†9,432	12,281	4,498	75	269	93	----	----	--------	--------	3,000	2
Dunlap Connellsville Coke Co.																
Garwood,	Fayette,	----------	1,004	120	9,734	10,858	6,591	15	236	20	1	----	--------	--------	2,685	2
Champion Connellsville Coke Co.																
Champion,	Fayette,	----------	--------	45	10,465	10,510	7,011	40	104	44	----	1	--------	--------	4,950	4
W. Harry Brown																
*Alicia,	Fayette,	1,976	660	295	----------	2,931	----------	------	------	------	----	----	--------	--------	1,700	------
Grand totals,		1,210,215	179,326	51,399	5,641,107	7,082,047	3,835,918	8,345	------	10,044	33	53	6,700	275	817,665	1,019

*New plant, contract work.
†3,000 tons stored on the surface

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers: Cylindrical	Number of Boilers: Horse power	Number of Boilers: Tubular	Number of Boilers: Horse power	Number of Boilers: Total horse power	Locomotives: Steam	Locomotives: Air	Locomotives: Electric	Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
H. C. Frick Coke Co.,	Fayette,			66	13,855	13,855	5	9	12	71	9,265	16	8,716	2,303	14	17
Consolidated Connellsville Coke Co.,	Fayette,	1	75	16	2,600	2,675			2	7	1,700	2	516	160	4	3
Brier Hill Coke Co.,	Fayette,			5	1,515	1,515	2	2		12	1,350	2	850	120	2	3
Taylor Coal and Coke Co.,	Fayette,			8	1,200	1,200			2	4	1,200	2	500	350	1	1
Orient Coke Co.,	Fayette,			4	1,800	1,800		5		10	3,488	2	330	200	3	3
Tower Hill Connellsville Coke Co.,	Fayette,			5	2,020	2,020				8	2,053	2	320	225	3	2
Connellsville Central Coke Co.,	Fayette,			9	1,200	1,200	1			10	1,000	3	380	220	3	2
Thompson Connellsville Coke Co.,	Fayette,			16	2,400	2,400		6		13	2,180	2	480	200	4	4
Republic Iron and Steel Co.,	Fayette,			4	1,620	1,620		4	4	7	2,000	2	700	200	2	2
Sunshine Coal and Coke Co.,	Fayette,			4	270	270	1			4	235					
Century Coke Co.,	Fayette,			1	100	100			1			1	30	25		
Struthers Coal and Coke Co.,	Fayette,			4	700	700				5	600	1	500	200	2	1
Woodside Coke Co.,	Fayette,			6	405	405			2	2	175				1	
McKeefrey Coke Co.,	Fayette,			4	600	600			2	3	600				2	
Monongahela River Consolidated Coal and Coke Co.,	Fayette,	3	300	2	160	460			1	4	177	2	320	180	1	
Dilworth Coal Co.,	Greene,			4	600	600			2	5	600	1	160	80	2	1
Bessemer Coke Co.,	Washington,			3	700	700				6	500	1	30	30		1
Clyde Coal Co.,	Washington,			4	550	550			3	2	475	3	750	250	1	
Prospect Coal and Coke Co.,	Fayette,			2	300	300				1	300	4	212	20		1
LaBelle Coke Co.,	Fayette,			2	400	400			4	2	500	1	325	325	2	
Vesta Coal Co.,	Washington,	1	45	2	160	205			1	2	195	6	255	150	1	1
Hustead-Semans Coal and Coke Co.,	Fayette,			6	900	900			1	5	850	4	800	200	2	2
Union Connellsville Coke Co.,	Fayette,			4	600	600				1	420	1	200	50		
Dunlap Connellsville Coke Co.,	Fayette,			2	200	200				2	110	1	130	50		
W. Harry Brown,	Fayette,			2	80	80				2	30	1	300	25		
Totals,		5	420	185	34,935	35,355	9	26	37	188	30,003	60	16,804	5,563	50	44

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside									Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
H. C. Frick Coke Co.,	Fayette,	11	8	29	1,134	52	288	44	132	30	335	157	2,220	10	16	56	71	453	16	329	951	3,171
Consolidated Connellsville Coke Co.,	Fayette,	3	1	5	201	10	32	6	9	------	74	------	341	3	6	10	13	144	3	66	245	586
Brier Hill Coke Co.,	Fayette,	1	1	3	280	------	------	------	26	2	105	12	430	1	4	6	7	160	5	35	218	648
Taylor Coal and Coke Co.,	Fayette,	1	1	3	100	8	50	8	18	------	35	1	225	1	3	5	10	80	2	20	121	346
Orient Coke Co.,	Fayette,	1	----	4	264	------	------	------	18	2	------	76	365	1	2	5	6	135	2	48	199	564
Tower Hill Connellsville Coke Co.,	Fayette,	2	----	4	76	21	111	21	30	------	100	------	365	2	6	10	11	175	6	64	274	639
Connellsville Central Coke Co.,	Fayette,	3	1	2	192	------	------	------	25	6	24	2	255	2	7	5	12	106	2	16	150	405
Thompson Connellsville Coke Co.,	Fayette,	2	1	6	255	42	------	42	40	5	62	95	550	1	2	18	18	49	3	93	184	734
Republic Iron and Steel Co.,	Fayette,	1	----	3	31	12	55	12	13	------	53	------	180	1	2	5	9	92	3	12	124	304
Sunshine Coal and Coke Co.,	Fayette,	2	----	----	80	------	------	------	14	1	8	1	106	2	2	3	5	52	2	20	86	192
Century Coke Co.,	Fayette,	1	----	1	105	------	------	------	9	------	20	8	144	1	1	3	2	65	1	------	73	217
Struthers Coal and Coke Co.,	Fayette,	1	----	2	89	------	------	------	12	------	15	------	119	1	1	3	7	45	2	18	77	196
Woodside Coke Co.,	Fayette,	1	----	1	80	------	------	------	11	1	20	------	114	1	1	9	3	45	2	51	112	226
McKeefrey Coal Co.,	Fayette,	1	----	1	80	------	------	------	11	------	15	1	109	1	4	3	5	50	1	36	100	209
Monongahela River Consolidated Coal and Coke Co.,	Fayette,	1	----	2	40	10	190	10	15	3	12	------	283	1	1	3	4	------	1	11	21	304
Dilworth Coal Co.,	Greene,	1	----	1	18	4	40	4	8	3	4	------	83	1	1	3	4	------	----	3	12	95
Bessemer Coke Co.,	Washington,	1	----	2	6	12	84	12	16	3	24	------	160	1	3	10	8	90	2	8	122	282
Clyde Coal Co.,	Washington,	1	----	1	------	6	40	6	6	------	8	2	70	1	----	2	4	2	1	9	19	89
Prospect Coal and Coke Co.,	Fayette,	1	----	1	40	------	------	------	4	------	4	------	50	1	1	2	3	30	----	4	41	91
LaBelle Coke Co.,	Fayette,	1	----	1	------	6	55	6	5	1	------	10	85	1	2	3	5	59	1	7	78	163
Vesta Coal Co.,	Washington,	1	1	1	------	7	61	7	6	------	11	------	95	----	1	3	6	------	1	31	42	137

Hustead-Semans Coal and Coke Co.,	Fayette,	1	----	1	------	9	55	9	9	------	16	------	100	1	3	5	7	59	1	12	88	188
Jacobs Creek Coal and Coke Co.,		1	----	----	13	------	------	------	2	------	1	------	17	1	----	1	----	16	1	8	27	44
Brownsville Coke Co.,		1	1	----	28	------	------	------	4	------	2	------	36	1	1	1	----	18	----	------	21	57
Union Connellsville Coke Co.,		1	----	----	30	------	------	------	3	------	10	------	44	1	----	1	3	44	----	------	49	93
Dunlap Connellsville Coke Co.,		1	----	1	9	------	------	------	1	------	1	------	13	1	----	1	2	2	----	1	7	20
Champion Connellsville Coke Co.,		1	----	----	23	------	------	------	2	------	------	------	26	1	1	----	1	12	1	2	18	44
Totals,		44	15	75	3,174	199	1,061	187	449	57	959	365	6,585	40	71	176	226	1,983	59	904	3,459	10,044

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
H. C. Frick Coke Co.,	Fayette,	22	20	23	21	25	26	27	26	26	26	27	27	296
Consolidated Connellsville Coke Co.,		25	24	23	14	16	15	17	17	17	26	26	26	246
Brier Hill Coke Co.,		26	24	27	26	26	26	27	26	26	25	26	26	311
Taylor Coal and Coke Co.,		26	24	27	26	22	26	26	26	26	26	26	26	307
Orient Coke Co.,		21	20	19	22	26	26	26	25	26	26	26	25	288
Tower Hill Connellsville Coke Co.,		23	19	15	12	24	26	26	26	26	24	26	26	273
Connellsville Central Coke Co.,		27	22	25	26	26	26	25	26	26	26	26	26	307
Thompson Connellsville Coke Co.,		25	23	10	------	21	26	26	23	26	25	25	26	256
Republic Iron and Steel Co.,		26	24	12	16	------	26	27	26	26	26	26	26	261
Sunshine Coal and Coke Co.,		26	24	27	26	26	26	26	26	26	26	26	26	311
Century Coke Co.,		26	21	22	20	21	26	26	26	25	26	26	25	290
Struthers Coal and Coke Co.,		25	20	27	25	19	26	26	26	26	26	26	27	299
Woodside Coke Co.,		24	23	------	20	26	22	25	26	26	26	26	21	265
McKeefrey Coal Co.,		23	16	25	25	23	22	20	22	25	26	26	26	279
Monongahela River Consolidated Coal and Coke Co.,		------	16	19	21	8	------	17	25	23	5	15	19	168
Dilworth Coal Co.,	Greene,	24	24	27	26	26	25	27	26	24	20	21	19	289
Bessemer Coke Co.,	Washington,	22	22	23	24	22	24	26	26	26	26	26	26	293
Clyde Coal Co.,	Washington,	26	19	26	15	19	26	23	18	23	26	23	26	270
Prospect Coal and Coke Co.,	Fayette,	22	21	27	20	24	26	25	26	26	26	26	24	293
LaBelle Coke Co.,	Fayette,	23	------	------	------	------	------	------	18	26	26	26	26	145
Vesta Coal Co.,	Washington,	20	20	20	20	12	20	20	20	25	25	24	24	250
Hustead-Semans Coal and Coke Co.,	Fayette,	------	------	------	------	------	------	------	------	------	26	22	20	68
Jacobs Creek Coal and Coke Co.,		19	19	19	19	19	19	18	18	19	19	18	19	225
Brownsville Coke Co.,		------	------	------	------	------	------	5	26	26	26	26	26	135
Union Connellsville Coke Co.,		------	16	25	26	26	25	25	25	25	25	26	25	269
Dunlap Connellsville Coke Co.,		8	20	5	25	24	23	21	17	23	25	21	24	236
Champion Connellsville Coke Co.,		------	------	------	------	------	------	------	------	26	26	26	26	104

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 19	Alexander Dunitski,	Hungarian,	Miner,	29	S.	0	0	Thompson No. 2,	Fayette,	Instantly killed by fall of roof slate at face of his room.
Feb. 12	James Crum,	American,	Mine foreman,	30	M.	1	6	Buffington,	Fayette,	Fatally injured by being caught between haulage ropes on a curve on main haulage. Died in hospital March 3.
20	Mike Cuchey,	Hungarian,	Helper,	23	S.	0	0	Bridgeport,	Fayette,	Fatally injured by fall of slate in his room. Died next day.
23	Andy Layo,	Polish,	Driver,	28	M.	1	1	Buffington,	Fayette,	Instantly killed by being caught between car and rib. He was dead when found so it could not be ascertained why he got off his trip on narrow side of the entry.
March 5	George Sharpneck,	American,	Laborer,	47	M.	1	2	Ronco,	Fayette,	Fatally injured by being caught between corner of rib and car that jumped the track while cleaning the track at mouth of room on No. 1 main heading. Died five hours later.
10	Steve Pilk,	Slavonian,	Miner,	38	S.	0	0	Struthers,	Fayette,	Fatally injured by fall of slate at face of his room. He dug all the coal from under a piece of slate and neglected to set posts. Died 24 hours later.
April 8	Andy Dolik,	Slavonian,	Miner,	20	S.	0	0	Searight,	Fayette,	Instantly killed by fall of roof coal while drawing pillar. He was cutting a post to make it fall and was caught.
23	Frank Hardnock,	Slavonian,	Miner,	33	M.	1	4	Millsboro,	Washington,	Instantly killed by fall of slate at face of his room while loading a car of coal.
24	Mike Milar,	Hungarian,	Miner,	52	M.	1	0	Teresa,	Fayette,	Instantly killed by fall of slate at face of his room. He knocked out the posts so that the slate would fall and was caught while finishing loading a car of coal.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
May 18	George Menish,	Hungarian,	Coke employe,	26	M.	1	4	Bridgeport,	Fayette,	Instantly killed by ram for coke ovens which caught his head against the oven door as he was looking into the oven. Outside.
June 4	Harry Cruse,	American,	Laborer,	23	S.	0	0	Garwood,	Fayette,	Fatally injured. He was standing on the edge of a wall 8 feet high, and in lifting a piece of timber 6 inches by 6 inches by 18 feet, one end of the timber slipped, causing him to fall backwards. He died a few hours later in the hospital. Outside.
25	Henry Gensbaur,	German,	Laborer,	47	M.	1	5	Orient,	Fayette,	Fatally injured. As he was opening a trap door on the entry for a driver his leg was caught by cars that had become uncoupled. Blood poisoning set in after the leg was amputated and he died June 29.
July 2	John Pekola,	Polish,	Miner,	27	S.	0	0	Bridgeport,	Fayette,	Fatally injured by fall of slate while drawing pillars. He was knocking out a post in his working place when the slate fell against the post, causing it to strike him on the chest. He died July 3.
14	Paul Sabo,	Slavonian,	Miner,	37	M.	1	2	Edenborn,	Fayette,	Killed instantly by fall of slate at face of his room. He neglected to set post.
20	Toney Rose,	Italian,	Miner,	28	S.	0	0	Bridgeport,	Fayette,	Fatally injured. He fell in front of the motor while assisting the motorman to make up a trip of cars on main entry. He died August 2.
22	Dallas Gregory,	American,	Driver,	25	M.	1	1	Brier Hill,	Fayette,	Instantly killed by fall of slate while hauling a loaded car along the entry.

Aug	10	John Hovan,	Slavonian,	Laborer,	60	M.	1	2	Edenborn,	Fayette,	Instantly killed by falling down the shaft. He was assisting the top man in putting a loaded car of material on the cage at the top of the shaft. While the cage was coming up the shaft Hovan opened the safety gates, turned back the safety blocks, and helped the top man to push the car forward. He fell with the car onto the ascending cage.
	23	John V. Olaughlin,	Irish,	Driver,	21	S.	0	0	Thompson No. 1,	Fayette,	Instantly killed by being run over by cars. He fell off loaded trip while attempting to set a brake as his trip was nearing the shaft bottom.
Sept.	1	Nick Covoich,	Slavonian,	Haulage-man,	39	M.	1	2	Republic,	Fayette,	Instantly killed by cars on butt entry. After cleaning up a fall of slate he started a trip of cars and was caught between the cars and crushed.
	3	John Shimko,	American,	Hitcher,	17	S.	0	0	Lambert,	Fayette,	Instantly killed in a wreck on main entry while riding on a motor after his day's work was done.
Oct.	8	Elmer Buders,	American,	Miner,	42	M.	1	1	Century,	Fayette,	Instantly killed by fall of roof slate in his working place while knocking out a post to make a fall on the pillar.
	12	Mike Novark,	Austrian,	Mucker,	22	S.	0	0	Gates No. 1,	Fayette,	Instantly killed in new air shaft that was being sunk for Gates mine. A blast had been fired and the sides had been examined as usual and found all right, but two hours later a large piece of rock fell from the side of the shaft and killed Novark.
	16	James Hines,	American,	Coke employe,	24	M.	1	0	Donald No. 2,	Fayette,	Fatally injured in collision of larries on coke ovens. Outside.
	22	John Manning,	American,	Miner,	18	S.	0	0	Millsboro,	Washington,	Fatally injured by fall of slate at face of room. They were cutting coal by puncher machine when the slate fell. The fire boss and the boy's father had examined the slate a few minutes before it fell and thought it safe. Died in the hospital.
Nov.	1	Peter Urovic,	Croatian,	Bratticeman,	44	M.	1	4	Republic,	Fayette,	Killed by fall of slate while removing the frame of an old trap door on No. 7 butt haulage way.
	2	Mike Duretza,	Slavonian,	Laborer,	22	S.	0	0	Buffington,	Fayette,	Killed by fall of roof slate on roadway leading to pillar workings, 1st section, while he and another workman were cleaning away a fall of slate.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Nov. 8	Albert Climar,	Polish,	Laborer,	30	M.	1	5	Thompson No. 1,	Fayette,	Fatally injured by cars. He was caught and knocked down by the cars while turning a switch on the main haulage way.
9	Frank Rusage,	Polish,	Miner,	21	S.	0	0	Millsboro,	Washington,	Fatally injured. He was caught between the cars and side of roadway while riding on a loaded trip of cars on main entry. He was learning the road as he was to become driver.
11	Robert Laurie,	American,	Cager,	16	S.	0	0	Palmer,	Fayette,	Instantly killed by fall of slate. He walked back from the cage about 200 feet to watch the men cutting the coal with the machine.
22	Stanley Washnock,	Polish,	Miner,	36	M.	1	2	Thompson No. 2,	Fayette,	Instantly killed by falling down the shaft. He with three other miners was being hoisted up the shaft. When they had been raised about 40 feet. Washnock was seen to stoop and immediately disappear down the shaft.
29	Paul Bearish,	Slavonian,	Driver,	19	S.	0	0	Sterling,	Fayette,	Fatally injured by being caught between car and side of entry. For some reason he got off his empty trip. Died in the hospital.
Dec. 21	Robert C. Ross,	American,	Foreman,	42	M.	1	5	Virginia,	Fayette,	Fatally injured. His coat was caught by a revolving shaft of the coal washer, about 1.30 P. M. He died in the hospital the same day. Outside.
29	Adam Gadenwitch,	Austrian,	Miner,	52	M.	1	0	Century,	Fayette,	Instantly killed by fall of roof while digging out a stump of coal at face of rib in order to "make a fall." He had been warned not to do so.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	1	Alexander Simons,	Hungarian,	Miner,	28	M.	LaBelle,	Fayette,	Ankle bone fractured by fall of draw slate at face of his room.
	6	Steve Sezch,	Slavonian,	Miner,	24	S.	Buffington,	Fayette,	Hip fractured by being squeezed between car and rib.
	13	Walter Rowan,	American,	Cager,	46	M.	Herbert,	Fayette,	Leg broken. Caught between two cars at shaft bottom.
Feb.	10	Joe Bennett,	American,	Miner,	17	S.	Millsboro,	Washington,	Leg fractured. He was caught in the haulage chain on main slope.
	12	William Horsecamp,	American,	Rope tender,	26	M.	Buffington,	Fayette,	Hip injured by being caught by haulage rope on main entry.
		Mike Kovash,	Slavonian,	Miner,	23	M.	Low Phos No. 1,	Fayette,	Leg broken by fall of slate.
	23	Steve Howatis,	Slavonian,	Driver,	36	M.	Brier Hill,	Fayette,	Leg broken by fall of slate.
March	2	Charles Kobash,	Russian,	Miner,	60	M.	Brier Hill,	Fayette,	Two ribs broken. Caught between car and rib in his room by horse pulling car off track.
	3	Press Paur,	American,	Helper,	19	S.	Ronco,	Fayette,	Leg and breast bruised by running down track into a car on the empty track.
	11	Andy Wettergrow,	Polish,	Miner,	29	S.	Bridgeport,	Fayette,	Leg broken by fall of slate at face of butt entry.
	13	Steve Middie,	Slavonian,	Loader,	23	S.	Clyde,	Washington,	Compound fracture of leg by fall of slate. Neglected to set post.
	17	John Minjock,	Slavonian,	Miner,	23	S.	Vesta No. 5,	Washington,	Leg broken in two places by fall of slate from unseen slip in main entry.
		Joe Kokles,	Slavonian,	Miner,	27	M.	Vesta No. 5,	Washington,	Ankle bone broken by fall of slate in main entry.
	25	George Younger,	Slavonian,	Driver,	21	S.	Tower Hill No. 2,	Fayette,	Badly squeezed between cars on curve.
April	1	Andy Smith,	Italian,	Miner,	36	M.	Crowthers,	Fayette,	Thigh bone broken by fall of slate at face of his room.
	10	Paul Marcovitz,	Hungarian,	Greaser,	18	S.	Republic,	Fayette,	Leg crushed. Caught between bumpers of two steel cars in mine near shaft bottom.
	19	Valentine Tenori,	Italian,	Driver,	20	M.	Clyde,	Washington,	Head badly cut by mule kicking him.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April 30	Louis Topka,	Polish,	Helper,	24	S.	Searight,	Fayette,	Foot crushed by motor passing over it on main entry.
May 14	Charles Tote,	Russian,	Laborer,	46	M.	Ronco,	Fayette,	Head bruised by being caught between car and rib in room.
18	Joe Yelowstich,	Slavonian,	Miner,	46	M.	Century,	Fayette,	Hip dislocated by fall of slate from side while working stumps at face of pillar.
31	John Miller,	Slavonian,	Laborer,	21	S.	Bridgeport,	Fayette,	Leg broken. Run over by coal cutting machine at face of entry. Leg amputated.
June 1	John Stanovich,	Slavonian,	Miner,	38	M.	Dearth,	Fayette,	Collar bone broken by being caught between car and rib on entry.
2	Fedora Powash,	Austrian,	Miner,	31	S.	Dearth,	Fayette,	Leg broken by being caught between car and face of room. He had knocked off the brake.
17	John Geopp, Jr.,	Slavonian,	Laborer,	15	S.	Clyde,	Washington,	Leg broken. Caught between car and mule while riding on front.
18	E. L. Haas,	American,	Fire boss,	38	M.	Thompson No. 1,	Fayette,	Hands and face burned by blown-out shot.
	William Wheeler,	English,	Shot firer,	28	S.			
July 2	Joseph Deprime,	Italian,	Miner,	34	M.	Century,	Fayette,	Leg broken and hip dislocated. Caught by fall of slate while drawing pillars.
14	George Marrannick,	Slavonian,	Miner,	21	S.	Edenborn,	Fayette,	Scalp wound by fall of slate while drawing pillars.
21	Nick Patrick,	Austrian,	Miner,	27	S.	Bridgeport,	Fayette,	Leg broken by fall of slate at face of his room.
26	Steve Shinosky,	Slavonian,	Driver,	23	S.	Century,	Fayette,	Head bruised by being bumped against roof on main entry.
30	Andy Opatchen,	Polish,	Miner,	27	S.	Lambert,	Fayette,	Leg almost cut off by wagon in his room.
Aug. 24	Adam Bower,	Austrian,	Miner,	40	M.	Palmer,	Fayette,	Thumb broken by piece of coal from face of room.
Sept. 1	Andy Foot,	Hungarian,	Miner,	44	M.	Solon,	Fayette,	Collar bones broken by fall of slate at the face of his room.

Sept.	3	Martin Brinsko,	Slavonian,	Greaser,	17	S.	Lambert,	Fayette,	Arm slightly cut by cars while riding on motor on right entry.
	11	George Sevelski,	Slavonian,	Greaser,	17	S.	Thompson No. 1,	Fayette,	Leg broken by fall of slate from side near shaft bottom.
	18	Powel China,	Italian,	Loader,	28	S.	LaBelle,	Fayette,	Back broken by fall of slate at face in the room next to his own.
	22	John Supock,	Polish,	Miner,	31	M.	Low Phos No. 1,	Fayette,	Leg fractured by fall of slate from side of pillar in room.
Oct.	6	Wassa Twanchic,	Slavonian,	Miner,	43	M.	Palmer,	Fayette,	Foot bruised while taking down draw slate at face of his room.
	7	Ephriam Victor,	English,	Asst. foreman,	48	M.	Martin,	Fayette,	Collar bone and two ribs broken by cars at right entry siding.
	9	John Stiner,	Polish,	Motorman,	31	M.	LaBelle,	Fayette,	Ankle broken by motor and empty trip on main haulage.
	13	Mat Sliniesheck,	Croatian,	Miner,	21	S.	Buffington,	Fayette,	Foot smashed by fall of slate at face of rib. Foot had to be amputated.
	20	Charles Cosock,	Slavonian,	Driver,	30	M.	Palmer,	Fayette,	Two ribs broken. Caught by trip on main road when lights went out.
	30	Pete Tomori,	Hungarian,	Loader,	20	S.	LaBelle,	Fayette,	Leg broken by fall of coal in his place at face of his room.
Nov.	20	Joseph Urechtwachitz,	Slavonian,	Miner,	25	S.	Donald,	Fayette,	Rupture of urethra. Caught by fall of slate at face of his room.
	28	John Swistock,	Slavonian,	Driver,	26	M.	Struthers,	Fayette,	Leg broken. Caught between cars while riding on trip on main entry.
Dec.	2	John Bushock,	Slavonian,	Miner,	35	M.	Lambert,	Fayette,	Spine broken by fall of roof while knocking out posts at face of rib, 17 entry.
	9	Joe Tussau,	Slavonian,	Laborer,	23	S.	Lambert,	Fayette,	Leg broken. Caught between the front car of trip and the horse on entry.
	11	Mike Popovich,	Slavonian,	Miner,	27	M.	Champion,	Fayette,	Skull fractured by fall of slate while knocking out a post at face of rib No. 1 entry.
	13	Lawrence Delphine,	Italian,	Shot firer,	35	M.	Tower Hill No. 2,	Fayette,	Face and neck burned by blast that had previously missed fire.
		Charles Poot,	Italian,	Miner,	25	S.			
		Mike Trepeck,	Slavonian,	Miner,	33	M.	Lambert,	Fayette,	Squeezed across hips by cars on B right entry while riding out on driver's trip.
	17	Andy Tressa,	Slavonian,	Driver,	21	S.	Brier Hill,	Fayette,	Rib broken while riding on trip of cars on main entry. His head struck a timber and he was knocked down.
	18	Mike Masaka,	Slavonian,	Snapper,	21	S.	Brier Hill,	Fayette,	Hip dislocated. He was knocked down by air motor on C left entry.

CONDITION OF MINES

H. C. FRICK COKE COMPANY

Buffington, Bridgeport, Dearth Nos. 1 and 2, Edenborn, Filbert Nos. 1 and 2, Gates Nos. 1 and 2, Lambert, Palmer Ronco and Ralph.—Ventilation, drainage and general conditions very good. Only permissible explosives are used, and all blasts are fired by shot firers employed especially for that purpose.

Effective watering system—water pipes and water-cars—are provided and used to dampen the roadways. Locked safety lamps are used exclusively in all these mines except in Dearth Nos. 1 and 2, which are non-gaseous.

In Bridgeport mine locked safety lamps are used on pillar work only. Competent men are employed as "fall bosses" to look after the safety of miners withdrawing pillars.

CONSOLIDATED CONNELLSVILLE COKE COMPANY

Donald Nos. 1 and 2, Sterling and Virginia.—Ventilation and drainage good. Permissible explosives only are used, and shot firers are employed to do all blasting. Water cars are used when necessary to water the roads. Sterling and Virginia are worked by the exclusive use of locked safety lamps.

BRIER HILL COKE COMPANY

Brier Hill.—General conditions, ventilation and drainage very good. No blasting permitted. Water pipe system and water cars used to dampen roadways. Locked safety lamps used exclusively.

TAYLOR COAL AND COKE COMPANY

Searight.—Ventilation and drainage good. The mine is naturally damp. Only permissible explosives used. The blasting is all done by shot firers. Locked safety lamps used exclusively.

ORIENT COKE COMPANY

Orient.—Ventilation and drainage good. Permissible explosives only are used, and shot firers are employed to do all blasting. Roadways dampened by use of water pipes and water cars. Locked safety lamps used exclusively.

TOWER HILL CONNELLSVILLE COKE COMPANY

Tower Hill Nos. 1 and 2.—Ventilation and drainage good. Only permissible explosives used. Shot firers are employed. Roads dampened by compressed air water tanks. Safety lamps used exclusively.

CONNELLSVILLE CENTRAL COKE COMPANY

Low Phos Nos. 1 and 2, and Herbert.—Ventilation and drainage very good. Only permissible explosives used, and all blasts are fired by shot firers. Water car and water pipes used to water roadways. Safety lamps used in Herbert mine exclusively.

THOMPSON CONNELLSVILLE COKE COMPANY

Thompson Nos. 1 and 2.—Ventilation and drainage good. Only permissible explosives used. Shots are fired by shot firers. Roads dampened by compressed air water tanks. Safety lamps used exclusively.

REPUBLIC IRON AND STEEL COMPANY

Republic.—Ventilation and drainage very good. Permissible explosives are used and shot firers are employed. Compressed air water tanks are used to dampen roadways. Safety lamps used exclusively.

SUNSHINE COAL AND COKE COMPANY

Teresa and Eleanor.—Ventilation and drainage good. The mines are damp. Only permissible explosives used. All blasting is done by shot firers.

CENTURY COKE COMPANY

Century.—Ventilation and drainage very good. Only permissible explosives are used. All blasts are fired by shot firers. Water pipes and water car are used to dampen roadways. Locked safety lamps used exclusively.

STRUTHERS COAL AND COKE COMPANY

Struthers.—Ventilation and drainage very good. Only permissible explosives are used for blasting coal. Shot firers are employed to fire all blasts. Water pipes and water cars are used to keep roadways damp. Safety lamps used exclusively.

WOODSIDE COKE COMPANY

Martin.—Drainage good. Ventilation not satisfactory on account of the air being allowed to escape through surface breaks to the outside near the fan. This matter is being remedied by the construction of overcasts. The mine is naturally damp. On December 26, the fan caught fire from electric wires and was destroyed. The fire spread into the mine and the coal is burning near the outcrop. Only permissible explosives are used to blast coal and all shots are fired by shot firers.

McKEEFREY COAL COMPANY

McKeefrey.—Ventilation, drainage and general conditions very good. Only permissible explosives are used, and shot firers are employed to fire all blasts at night. Roadways are kept scrupulously clean and damp.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Crowthers.—Ventilation and drainage good. Only permissible explosives used. Roadways are dampened by exhaust steam in the air current and by the use of water car.

DILWORTH COAL COMPANY

Dilworth.—Ventilation and drainage good. Only permissible explosives used for blasting. Water car used to dampen roadways.

BESSEMER COKE COMPANY

Millsboro.—Ventilation and drainage good. The mine is naturally very damp. Only permissible explosives are used, and shot firers are employed to fire all blasts. Safety lamps used exclusively.

CLYDE COAL COMPANY

Clyde.—Ventilation and drainage good. Only permissible explosives used. The humidity of the air currents is kept in an excellent condition by eleven water sprays and roadways dampened by water pipes with hose connections.

PROSPECT COAL AND COKE COMPANY

Solon.—Ventilation and drainage good. Only permissible explosives are used to blast coal. The mine is naturally damp.

LA BELLE COKE COMPANY

LaBelle.—Ventilation and drainage good. Permissible explosives are used to blast coal. Water car is used to dampen roadways.

VESTA COAL COMPANY

Vesta No. 5.—Ventilation and drainage good. The mine is naturally damp. Only permissible explosives are used to blast the coal.

HUSTEAD-SEMANS COAL AND COKE COMPANY

Hustead.—Ventilation and drainage good. The mine is naturally damp. Only permissible explosives are used to blast the coal.

JACOBS CREEK COAL AND COKE COMPANY

Jacobs Creek.—Drainage good. Ventilation not satisfactory, and a new fan is being installed in place of the furnace. The mine is naturally damp. Only permissible explosives used.

BROWNSVILLE COKE COMPANY

Ganns.—Ventilation and drainage fair. The mine is damp. Permissible explosives are used and shot firers employed to blast coal at night.

UNION CONNELLSVILLE COKE COMPANY

Elizabeth.—Ventilation and drainage very good. The mine is naturally damp. Permissible explosives are used and all blasts are fired by shot firers. Safety lamps used exclusively.

DUNLAP CONNELLSVILLE COKE COMPANY

Garwood.—Ventilation and drainage very good. The mine is damp. Only permissible explosives are used and all blasts are fired by shot firers. Locked safety lamps used exclusively.

CHAMPION CONNELLSVILLE COKE COMPANY

Champion.—Ventilation and drainage good. The mine is damp. Permissible explosives used. Blasts are fired by shot firer.

W. HARRY BROWN

Alicia.—A new mine, not yet completed.

IMPROVEMENTS

H. C. FRICK COKE COMPANY

Buffington.—Installed a rescue station equipped with four oxygen helmets, 2000 liters of oxygen and one resuscitator. Built seventeen permanent stoppings.

Bridgeport.—Built thirteen permanent stoppings, four overcasts and a brick safety lamp house.

Dearth No. 1.—Installed one 7-ton electric locomotive, and built twenty-three permanent stoppings and one overcast.

Dearth No. 2.—Built thirteen permanent stoppings and one overcast.

Edenborn.—Built sixty-two permanent stoppings and three overcasts.

Filbert Nos. 1 and 2.—This is a new plant. No. 1 shaft is 550 feet deep and No. 2 is 581 feet. Both shafts are concrete lined, equipped with steel head frames, storage bins, large hoisting engines, low and high pressure air compressors for coal cutting machines and haulage. At No. 2 shaft a Capell type reversible fan, size 7 x 26 feet, has been installed, but is not yet in operation.

Gates Nos. 1 and 2.—Built fifty-seven permanent stoppings and one overcast. Installed a Norwalk low pressure air compressor and extended haulage one-half mile.

Lambert.—Built thirty-five permanent stoppings and one overcast.

Ronco.—Installed one compressed air haulage locomotive.

Ralph.—This is a new plant, with all modern improvements, machinery, buildings, etc.

CONSOLIDATED CONNELLSVILLE COKE COMPANY

Donald Nos. 1 and 2.—Built twenty permanent stoppings and a brick stable. Installed one Duplex double plunger pump and one Compound duplex double plunger pump for fresh water pumping station.

Sterling.—Built a brick safety lamp house and twenty permanent stoppings.

Virginia.—Installed a Foust concentrator and coal washer, the first of its kind in the bituminous coal region.

BRIER HILL COKE COMPANY

Brier Hill.—Built three permanent stoppings, extended haulage road 4000 feet, and added 2000 feet to water pipe sprinkling system.

TAYLOR COAL AND COKE COMPANY

Searight.—Built thirty-four permanent stoppings and two overcasts. Excavated inside engine room size 25 x 32 feet, lined with brick and concrete. Installed haulage engines size 24 x 36 inches.

ORIENT COKE COMPANY

Orient.—Built one permanent overcast, forty-seven permanent stoppings, a stone safety lamp house and ten two-room houses. Installed a five-ton compressed air locomotive.

TOWER HILL CONNELLSVILLE COKE COMPANY

Tower Hill No. 1.—Built thirty-two permanent stoppings and one hundred and forty coke ovens. Installed a 200 K. W. electric generator.

Tower Hill No. 2.—Built one hundred and sixty-eight coke ovens, six permanent stoppings, two overcasts and ten six-room houses. Completed concrete lining at shaft bottom 440 feet. Installed a 200 K. W. electric generator.

CONNELLSVILLE CENTRAL COKE COMPANY

Herbert.—Built twelve concrete stoppings, one concrete overcast, 110 rectangular coke ovens and 25 blocks of eight-room houses. Installed one Yough pump, a second motion hoisting engine, and 50 forty-bushel mine cars.

REPUBLIC IRON AND STEEL COMPANY

Republic.—Built sixteen concrete stoppings, three concrete overcasts, and completed concrete arch at shaft bottom. Installed two compressed air locomotives and one chemical mine fire engine. Enlarged power house fifty feet.

STRUTHERS COAL AND COKE COMPANY

Struthers.—Built twenty-three permanent stoppings.

WOODSIDE COKE COMPANY

Martin.—Built five permanent overcasts and two permanent stoppings; relaid main haulage road with 60-pound steel rail, built new steel trestle over "Fast Hollow," reconstructed old coke ovens; erected one new motor house. Installed a Jeffrey belt conveyor.

McKEEFREY COAL COMPANY

McKeefrey.—Built two permanent overcasts and twelve permanent stoppings.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Crowthers.—Built fifteen permanent stoppings; extended haulage 1500 feet; erected building for storing carbonite, a building for motor house; tipple raised 6 feet, and new cross over dump installed. Also installed one haulage engine and one Erie steam boiler.

BESSEMER COKE COMPANY

Millsboro.—Installed at Masontown a rescue station equipped with oxygen helmets; built 157 beehive coke ovens, one kiln at brick yard; constructed a large water reservoir, capacity 30,000,000 gallons. Increased capacity of washed-coal bin by 225 tons. Installed one 400 horse power tubular boiler, one Ingersoll Rand air compressor, twelve mining machines and one coal conveyor and bin.

LA BELLE COKE COMPANY

LaBelle.—Built six permanent stoppings and installed one 6-ton electric gathering locomotive and one Dewing 6-inch pump.

VESTA COAL COMPANY

Vesta No. 5.—Built thirty permanent stoppings.

JACOBS CREEK COAL AND COKE COMPANY

Jacobs Creek.—Two new openings to the surface have been made for drainage and ventilation.

UNION CONNELLSVILLE COKE COMPANY

Elizabeth.—This is a new plant equipped with modern machinery and necessary buildings.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

January 11, information was made against Andrew Marshall and John Quinn, charging them with violation of Article 20, Rule 63, of the mining law. Andrew Marshall was held for March term of court. March 11, he entered a plea of guilty and the court sentenced him to pay a fine of one hundred dollars and serve six months in jail.

John Quinn was not apprehended until after Andrew Marshall had been sentenced. He was tried and the case was dismissed as Andrew Marshall had entered a plea of guilty to the charge.

Feburary 26, information was made against Dominic Jordon, charging him with passing a danger signal and entering the mine and kindling a fire. After the hearing he was bound over to appear in court. March 11, he entered a plea of guilty to both charges and the court sentenced him to pay a fine of twenty-five dollars and costs.

July 7, information was made against Joe Repka, charging him with crossing a danger signal and entering a working place that had been fenced off by the fire boss of Tower Hill mine.

After the hearing he was bound over to appear in court. He entered a plea of guilty and was sentenced to pay twenty-five dollars and costs.

October 18, information was made against H. M. Wilson, superintendent of the Martin mine, of the Woodside Coke Company, charging him with operating the mine without a fire boss and making false entries in the mine foreman's and fire bosses' record books. December 6, the Grand Jury found a true bill against him. The case has not yet been disposed of.

December 1, information was made against Joe Gartly, fire boss, charging him with neglect of duty and making false entries in fire bosses record book. He is a fugitive from justice.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held April 6, 7, 8 and 9.

The Board of Examiners was composed of Harry Drum, Superintendent; William Seddon, Mine Foreman, and David Young, Mine In-

spector. There were ninety-one applicants examined, twenty-six for certificates as Mine Foremen, and sixty-five for certificates as Fire Bosses. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

James R. Black, Anson B. Nedrow, Robert McKenna, Thomas J. Kane, James C. Smith, John Shultz, Robert M. Charlton, Thomas Skillcorn and James A. Conway.

SEVENTEENTH DISTRICT

ALLEGHENY AND WASHINGTON COUNTIES

Pittsburg, Pa., February 14, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my report as Inspector of Mines of the Seventeenth Bituminous District for the year ending December 31, 1909, in compliance with the Acts of Assembly of May 15, 1893, and April 14, 1903.

I was transferred to this District July 1, 1909, from the Seventh District.

The report contains the usual tables and statistics, a brief description of the mines and the most important improvements made during the year, a report of the annual examinations of applicants for mine foremen's certificates and a report of the number of safety lamps in use, and the legal proceedings instituted.

Respectfully submitted,

John I. Pratt,
Inspector.

41—23—1909

SUMMARY OF STATISTICS

Number of mines,	60
Number of mines in operation,	36
Number of tons of coal shipped to market,	5,788,011
Number of tons used at mines for steam and heat,	148,579
Number of tons sold to local trade and used by employes,	69,421
Number of tons used in manufacture of coke,	———
Number of tons of coal produced,	6,006,011
Number of tons of coke produced,	———
Number of coke ovens,	———
Number of coke ovens in operation,	———
Number of tons of coal produced by pick mining,	1,622,971
Number of tons produced by compressed air machines,	1,326,164
Number of tons produced by electrical machines,	3,056,876
Number of persons employed inside of mines,	8,089
Number of persons employed outside, including coke workers,	974
Number of persons employed at manufacture of coke,	———
Number of fatal accidents inside of mines,	26
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	39
Number of non-fatal accidents outside,	1
Number of tons of coal produced per fatal accident inside,	231,000
Number of persons employed per fatal accident inside,	311
Number of persons employed per fatal accident outside,	974
Number of persons employed per non-fatal accident inside,	207
Number of persons employed per non-fatal accident outside,	974
Number of wives made widows,	14
Number of children made orphans,	28
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	6
Number of compressed air locomotives used inside,	3
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	62
Number of electric motors used outside,	———
Number of fans in use,	50
Number of furnaces in use,	10
Number of gaseous mines in operation,	20
Number of non-gaseous mines in operation,	16
Number of new mines opened,	———
Number of old mines abandoned,	5

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Pittsburg Coal Company,	2,441,350
Pittsburg-Buffalo Company,	770,689
Pittsburg Terminal Railroad and Coal Company,	716,930
Youghiogheny and Ohio Coal Company,	588,555
Crescent Coal Company,	357,590
United Coal Company,	344,269
Monongahela River Consolidated Coal and Coke Company,	230,214
Mifflin Coal Company,	204,160
Meadow Lands Coal Company,	192,129
Ollett Brothers,	73,148
J. M. Greek and Company,	39,703
E. R. Wise,	32,928
W. S. B. Hays,	11,305
Paul Coal Company,	3,041
Total,	6,006,011

Production by Counties

Allegheny,	3,424,846
Washington,	2,581,165
Total,	6,006,011

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Pittsburg Coal Co.,	7	--------	7	8	--------	8	348,764	305,169	3,167	353	3,520	452	--------	396	--------
Pittsburg-Buffalo Co.,	3	--------	3	14	--------	14	256,896	55,049	722	125	847	240	--------	51	--------
Pittsburg Terminal Railroad and Coal Co.,	1	--------	1	5	1	6	716,930	143,386	1,821	194	2,015	1,821	--------	364	194
Youghiogheny and Ohio Coal Co.,	2	1	3	7	--------	7	294,277	84,079	758	84	842	379	84	108	--------
Crescent Coal Co.,	2	--------	2	2	--------	2	178,795	178,795	317	42	359	158	--------	158	--------
United Coal Co.,	6	--------	6	1	--------	1	57,378	344,269	306	29	335	51	--------	306	--------
Mifflin Coal Co.,	2	--------	2	--------	--------	--------	102,080	--------	228	34	262	114	--------	--------	--------
Meadow Lands Coal Co.,	2	--------	2	2	--------	2	96,064	96,064	229	37	336	149	--------	149	--------
E. R. Wise,	1	--------	1	--------	--------	--------	32,928	--------	46	3	49	46	--------	--------	--------
Miscellaneous Companies,	--------	--------	--------	--------	--------	--------	--------	--------	425	73	498	--------	--------	--------	--------
Totals and averages for district,	26	1	27	39	1	40	231,000	154,000	8,089	974	9,063	311	974	207	974

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	----	----	----	----	1	----	----	----	1	3.85
Falls of slate,	2	----	----	1	----	2	4	1	1	----	1	1	13	50.00
Falls of roof,	----	----	----	----	----	----	1	2	2	----	1	1	7	26.92
Mine cars,	1	----	----	----	1	----	----	----	----	2	----	----	4	15.38
Electricity,	----	----	----	----	----	----	----	----	1	----	----	----	1	3.85
Totals,	3	----	----	1	1	2	5	3	5	2	2	2	26	100.00
Causes of Accidents Outside														
Cars,	1	----	----	----	----	----	----	----	----	----	----	----	1	100.00
Totals,	1	----	----	----	----	----	----	----	----	----	----	----	1	100.00
Grand totals inside and outside,	4	----	----	1	1	2	5	3	5	2	2	2	27	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	1	----	----	----	2	----	----	----	3	7.69
Falls of slate,	----	3	----	----	4	1	1	2	----	----	1	1	13	33.34
Falls of roof,	----	----	1	2	2	----	----	----	----	----	----	1	6	15.39
Mine cars,	----	1	1	1	1	----	----	2	1	3	1	1	12	30.77
Blasts, premature and otherwise,	----	----	----	----	----	----	----	----	----	----	----	1	1	2.56
Mules,	----	----	----	----	----	----	----	----	----	1	----	----	1	2.56
Machinery,	----	----	----	----	1	1	----	----	----	----	----	----	2	5.13
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	----	1	1	2.56
Totals,	----	4	2	3	9	2	1	4	3	4	2	5	39	100.00
Causes of Accidents Outside														
Miscellaneous,	----	----	----	----	----	----	----	----	----	----	1	----	1	100.00
Totals,	----	----	----	----	----	----	----	----	----	----	1	----	1	100.00
Grand totals inside and outside,	----	4	2	3	9	2	1	4	3	4	3	5	40	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	----	1	----	1	2	1	1	----	----	----	6
Machine runners,	----	----	----	----	----	----	----	----	1	----	----	----	1
Machine loaders,	2	----	----	----	----	1	3	2	2	----	2	1	13
Drivers and runners,	----	----	----	----	----	----	----	----	1	2	----	----	3
Company men,	----	----	----	----	----	----	----	----	----	----	----	1	1
Motormen,	1	----	----	----	1	----	----	----	----	----	----	----	2
Totals,	3	----	----	1	1	2	5	3	5	2	2	2	26
Outside													
Superintendents,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	1	----	----	----	----	----	----	----	----	----	----	----	1
Grand totals inside and outside,	4	----	----	1	1	2	5	3	5	2	2	2	27

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	----	2	3	----	----	2	1	----	1	4	13
Machine runners,	----	----	1	----	3	1	----	----	----	----	----	----	5
Machine loaders,	----	3	1	----	3	1	1	2	2	----	----	----	13
Drivers and runners,	----	1	----	1	----	----	----	----	----	3	1	----	6
Cagers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Laborers,	----	----	----	----	----	----	----	----	----	1	----	----	1
Totals,	----	4	2	3	9	2	1	4	3	4	2	5	39
Outside													
Engineers and firemen,	----	----	----	----	----	----	----	----	----	----	1	----	1
Totals	----	----	----	----	----	----	----	----	----	----	1	----	1
Grand totals inside and outside,	----	4	2	3	9	2	1	4	3	4	3	5	40

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	----	----	1	----	----	1	----	2	----	----	1	7
Scotch,	----	----	----	----	----	----	1	----	----	----	----	----	1
German,	----	----	----	----	----	----	----	1	----	----	----	----	1
Polish,	1	----	----	----	----	1	----	----	----	----	----	----	2
Hungarian,	----	----	----	----	----	----	----	1	----	----	----	----	1
Italian,	1	----	----	----	----	----	----	1	1	1	1	1	6
Slavonian,	----	----	----	----	----	----	2	----	1	1	1	----	5
Austrian,	----	----	----	----	----	1	----	----	----	----	----	----	1
French,	----	----	----	----	----	----	----	----	1	----	----	----	1
Granish,	----	----	----	----	1	----	1	----	----	----	----	----	2
Totals,	4	----	----	1	1	2	5	3	5	2	2	2	27

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	----	2	----	----	1	----	1	2	1	7
German,	----	----	----	----	----	----	----	1	----	1	----	----	2
Polish,	----	----	----	1	3	----	----	----	1	1	----	----	6
Hungarian,	----	1	1	----	1	1	1	----	----	----	----	3	8
Italian,	----	----	----	1	1	----	----	----	1	1	1	----	5
Slavonian,	----	2	1	----	----	----	----	----	----	----	----	----	3
Lithuanian,	----	1	----	----	----	1	----	1	----	----	----	----	3
Russian,	----	----	----	----	----	----	----	----	----	----	----	1	1
Greek,	----	----	----	1	1	----	----	----	----	----	----	----	2
Granish,	----	----	----	----	1	----	----	1	1	----	----	----	3
Totals,	----	4	2	3	9	2	1	4	3	4	3	5	40

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Pittsburg Coal Co.																
Allison,	Drift,	Non-gas.,	Fan,	24	7.9	7	54	1.5	Brazil,	Steam,		4	60,000	28,000	63,000	190
Anderson No. 1,*	Drift,	Non-gas.,	Fan,	13					Pollock,							
Anderson No. 2,*	Drift,	Non-gas.,	Fan,	4					Boston, Blower,							
Boon,*	Slope,	Gaseous,	Fan,	12					Brazil,							
Blanch,*	Drift,	Gaseous,	Fan,	12												
Bower Hill,*	Drift,	Gaseous,	Furnace,													
Eclipse,*	Drift,	Gaseous,	Fan,	18	6	8.5			Robinson,	Steam,						
Fair Haven,	Drift,	Gaseous,	Fan and Furnace,	6	1.5	2.2	350	.6	Clark,	Electricity,	48	4	74,000	46,000	78,000	181
First Pool Nos. 1 and 3,	Drift,	Gaseous,	Fan and Furnace,	6	1.4	2.2	270	.3	Clark,	Electricity,	42	5	46,000	44,000	50,000	321
First Pool No. 2,	Shaft,	Gaseous,	Fan,	13	7	6.3	120	1.4	Capell,	Steam,		7	115,000	78,000	121,000	383
Gastonville No. 1,*	Drift,	Non-gas.,	Furnace,													
Gastonville No. 2,*	Drift,	Non-gas.,	Furnace,													
Gastonville No. 3,*	Drift,	Non-gas.,	Furnace,													
Harrison,	Slope,	Gaseous,	Fan,	8	2.5	2.4	350	1.7	Stine,	Electricity,		7	124,000	75,600	132,000	381
			Fan,	25	8	6.10	70	2.4	Vulcan,	Electricity,						
Lick Run,	Slope,	Gaseous,	Fan,	25	8	7	154	.9	Vulcan,	Steam,		5	98,000	55,000	110,000	194

*Idle.

Leasdale,*	Drift,	Gaseous,	Fan,						Capell,	Steam,	6	102,000	39,000	108,000	426
Midland No. 1,	Drift,	Non-gas.,	Fan,	11.6	4.6	5.1	180	1.3	Capell,	Steam,					
Midland No. 2,*	Drift,	Non-gas.,	Fan,	11	4.4	5.2			Capell,	Steam,	6	105,000	40,500	108,000	299
Midland No. 3,	Drift,	Gaseous,	Fan,	11	4.4	5.2	180	1.3	Capell,	Steam,					
Nixon,*	Drift,	Gaseous,	Fan,	16					Capell,						
Nottingham,	Drift,	Gaseous,	Fan,	13.5	6	6	108	1.3	Capell,	Steam,	5	100,000	63,050	105,000	371
Oak,	Drift,	Gaseous,	Fan,	15	3.3	2	90	1	Brazil,	Steam,	2	32,000	20,000	36,000	92
Panhandle,*	Drift,	Gaseous,	Fan,	14.5					Brazil,						
Provident,*	Shaft,	Non-gas.,	Fan,	9	4										
Summer Hill,	Drift,	Gaseous,	Fan,	16	6	7.9	95	1	Capell,	Steam,	4	67,000	67,000	72,000	218
Union,*	Slope,	Non-gas.,	Fan,	6					Stine,						
Pittsburg-Buffalo Co.															
Bertha,	Drift,	Non-gas.,	Fan,	10	4		154	2.3	American Blower,	Electricity,	4	68,000	47,500	72,000	231
Hazel,	Slope,	Gaseous,	Fans,	14	6		150	2.3	Capell,	Steam,	12	212,600	138,500	224,600	491
				22	8		90	2.6	Lepley,						
Pittsburg Terminal Railroad and Coal Co.															
A or Mine No. 1,*	Shaft,	Gaseous,	Fan,	11	4.5	5.1			Capell,	Steam,					
B or Mine No. 2,	Shaft,	Gaseous,	Fan,	11	4.5	5.1	180	1.6	Capell,	Steam,	5	96,000	50,000	100,000	410
C or Mine No. 3,	Shaft,	Gaseous,	Fan,	13.5	7	6	180	1	Capell,	Steam,	6	130,900	68,500	135,000	366
D or Mine No. 4,	Shaft,	Gaseous,	Fan,	13.5	7	6			Capell,	Steam,					8
E or Mine No. 5,*	Shaft,	Gaseous,	Fan,	13.5	7	6			Capell,	Steam,					
F or Mine No. 6,	Drift,	Non-gas.,	Fan,	11	4.5	5.1	156	1.2	Capell,	Steam,	5	75,000	43,400	81,000	490
G or Mine No. 7,	Drift,	Non-gas.,	Fan,	11	4.5	5.1	180	1.5	Capell,	Steam,		81,000	56,000	88,000	547
Youghiogheny and Ohio Coal Co.															
Manifold No. 1,	Shaft,	Gaseous,	Fan,	16	4	7.5	120	2.5	Robinson,	Steam,	4	105,000	49,500	138,930	278
Manifold No. 2,	Shaft,	Gaseous,	Fan,	16	4	7.5	100	1.9	Clifford,	Steam,	4	90,000	50,400	96,000	255
Reilly No. 2,	Drift,	Non-gas.,	Fan,	6	1.4	2.2			Clark,	Electricity,					41
Thompson,	Drift,	Gaseous,	Fan,	6	1.4	2.2	140	.5	Clark,	Electricity,	3	32,000	22,000	38,000	184
Crescent Coal Co.															
Peters Creek No. 1,	Drift,	Non-gas.,	2 Fans,	5	1.6	2	400	.2	American Blower,	Electricity,	4	85,000	22,000	92,000	102
				7	1.8	3.4	300	.3	Stine,						
Peters Creek No. 2,	Drift,	Non-gas.,	Fan,	5	1	2.2	300	.8	Stine,	Electricity,	3	50,000	26,000	55,000	133
Peters Creek No. 3,	Drift,	Non-gas.,	Fan,	5	1.6	2.2	400	.5	American Blower,	Electricity,	4	35,000	25,000	40,000	82
United Coal Co.															
Rich Hill,	Slope,	Gaseous,	Fan,	16	6.5	4	112	.2	Robinson,	Steam,	8	130,000	59,300	134,000	306

*Idle.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Monongahela River Consolidated Coal and Coke Co.																
Becks Run,	Drift,	Gaseous,	Fan,	8	2.5	------	375	1.3	Stine,	Steam,	----	8	130,000	59,300	134,000	266
Mifflin Coal Co.																
Mifflin No. 1,	Drift,	Non-gas.,	Fan,	7	1.4	3	370	.8	Stine,	Electricity,	----	3	66,000	27,000	72,000	126
Mifflin No. 2,	Drift,	Non-gas.,	Fan,	5	1.4	2.2	450	.6	Stine,	Electricity,	----	2	50,000	24,000	56,000	102
Meadow Lands Coal Co.																
Meadow Lands No. 1,	Slope,	Non-gas.,	Fan,	16	4.5	5	54	.8	Brazil,	Steam,	----	2	46,000	22,000	54,000	80
Meadow Lands No. 2,	Shaft,	Gaseous,	Fan,	20	7	5	68	1.5	Brazil,	Steam,	----	4	68,000	28,000	78,000	219
Ollett Brothers																
Essen No. 1,	Drift,	Gaseous,	Fan,	20	6	5.6	60	1	Robinson,	Steam,	----	2	42,000	20,000	45,000	78
J. M. Greek and Co.																
Sallie,*	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	------	------	----	----	12,000	9,000	14,000	66
Dandy,	Drift,	Non-gas.,	Furnace,													
E. R. Wise																
Germania,	Drift,	Non-gas.,	Furnace,	------	------	------	------	------	------	------	----	----	10,000	800	12,000	46

*Idle.

W. S. B. Hays Calhoon,	Drift,	Non-gas.,	Natural,					4,000	2,000	6,000	9
Paul Coal Co. Paul,	Drift,	Non-gas.,	Furnace,					15,000	10,000	18,000	6
D. A. Laughlin Rachel,*	Drift,	Non-gas.,	Natural,								

*Idle.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Pittsburg Coal Co.,	Allison,	Drift,	Non-gas.,	1	Electricity,	Pittsburg Thin,	60	67	50	114,379
				17	Compressed Air,					
	Fair Haven,	Drift,	Gaseous,	7	Electricity,		58	72	54	69,549
	First Pool Nos. 1 and 3,	Drift,	Non-gas.,	19	Compressed Air,		64	79	58	264,980
	First Pool No. 2,	Shaft,	Gaseous,	27	Compressed Air,		66	78	56	136,516
	Harrison,	Slope,	Gaseous,	13	Electricity,		60	72	54	237,905
	Lick Run,	Slope,	Gaseous,	19	Compressed Air,		68	72	66	137,319
				4	Electricity,					
	Midland No. 1,	Drift,	Non-gas.,	26	Compressed Air,		60	72	52	281,221
				2	Electricity,					
	Midland No. 3,	Drift,	Gaseous,	33	Compressed Air,		60	72	54	196,868
	Nottingham,	Drift,	Gaseous,	11	Electricity,		63	78	40	182,248
	Oak,	Drift,	Gaseous,	12	Compressed Air,		65	67	60	67,024
	Summer Hill,	Drift,	Gaseous,	7	Electricity,		62	66	58	87,001
Totals,				198						1,775,010
Pittsburg-Buffalo Co.,	Bertha,	Drift,	Non-gas.,	10	Electricity,	Pittsburg Thin,	65	73	58	138,991
	Hazel,	Slope,	Gaseous,	41			66	80	50	222,097
Totals,				51						361,088
Pittsburg Terminal Railroad and Coal Co.,	B or Mine No. 2,	Shaft,	Gaseous,	12	Electricity,	Pittsburg Thin,	64	72	55	163,619
	C or Mine No. 3,	Shaft,	Gaseous,	30	Compressed Air,		64	72	55	73,275

	D or Mine No. 4,	Shaft,	Gaseous,	22	Compressed Air,	Pittsburg Thin,	64	72	55	4,589
	E or Mine No. 6,	Drift,	Gaseous,	24	Compressed Air,		64	72	55	116,026
				12	Electricity,					
	F or Mine No. 7,	Drift,	Non-gas.,	14	Electricity,		62	74	55	224,149
Totals,				114						581,658
Youghiogheny and Ohio Coal Co.,	Manifold No. 1,	Shaft,	Gaseous,	3	Compressed Air,	Pittsburg Thin,	64	72	60	231,961
				12	Electricity,					
	Manifold No. 2,	Drift,	Gaseous,	12	Electricity,		64	72	60	176,115
	Reilly No. 2,	Drift,	Non-gas.,	1	Electricity,		65	66	63	3,424
	Thompson,	Drift,	Gaseous,	4	Electricity,		66	68	64	92,720
Totals,				32						504,220
Crescent Coal Co.,	Peters Creek No. 1,	Drift,	Non-gas.,	4	Electricity,	Pittsburg Thin,	68	82	56	80,120
	Peters Creek No. 2,	Drift,	Non-gas.,	2			64	88	54	115,212
	Peters Creek No. 3,	Drift,	Non-gas.,	4			66	68	58	100,086
Totals,				10						295,418
United Coal Co.,	Rich Hill,	Slope,	Gaseous,	15	Electricity,	Pittsburg Thin,	60	72	48	295,157
Monongahela River Consolidated Coal and Coke Co.,	Becks Run,	Drift,	Gaseous,	9	Electricity,	Pittsburg Thin,	65	70	60	165,329
Mifflin Coal Co.,	Mifflin No. 1,	Drift,	Non-gas.,	6	Electricity,	Pittsburg Thin,	66	72	60	117,241
	Mifflin No. 2,	Drift,	Non-gas.,	5			66	72	60	79,433
Totals,				11						196,674
Meadow Lands Coal Co.,	Meadow Lands No. 1,	Slope,	Non-gas.,	10	Compressed Air,	Pittsburg Thin,	60	65	54	28,758
	Meadow Lands No. 2,	Shaft,	Gaseous,	14	Compressed Air,	Pittsburg Thin,	60	65	54	142,145
				6	Electricity,					
Totals,				30						170,903
J. M. Greek and Co.,	Dandy,	Drift,	Non-gas.,	8	Compressed Air,	Pittsburg Thin,	66	72	60	33,542
Paul Coal Co.,	Paul,	Drift,	Non-gas.,	1	Electricity,		61	72	54	3,041
Grand totals,				479						4,383,040

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Pittsburg Coal Co.						
Allison,	Washington,			W. A. Lockhart,	Huston,	P. C. and St. L. Chartiers Valley Branch
Anderson Nos. 1 and 2,*	Washington,			James McGuire,	Hackett,	B. and O.
Boon,*	Washington,			W. A. Lockhart,	Huston,	P. C. and St. L. Chartiers Valley Branch
Blanch,*	Allegheny,			James McGuire,	Hackett,	B. and O.
Bower Hill,*	Allegheny,			S. P. McCaffery,	Bridgeville,	P. C. and St. L. Chartiers Valley Branch
Eclipse,*	Washington,			James McGuire,	Hackett,	B. and O.
Fair Haven,	Allegheny,			F. P. Mank,	Fair Haven,	Pittsburg and Castle Shannon
First Pool Nos. 2, 1 and 3,	Allegheny,			H. D. Tomson,	Willock,	B. and O.
Gastonville Nos. 1, 2, 3,*	Washington,			James McGuire,	Hackett,	B. and O.
Harrison,	Allegheny,			W. A. Linsley,	Beadling,	P. Y. and C.
Lick Run,	Allegheny,	J. D. Sharp,	232 Fifth Avenue, Pittsburg,	James Porter,	Broughton,	B. and O.
Leasdale,*	Allegheny,			J. J. Boyle,	Loupnex,	P. C. and St. L. Chartiers Valley Branch
Midland Nos. 1, 2,* 3,	Washington,			W. A. Lockhart,	Huston,	P. C. and St. L. Chartiers Valley Branch
Nixon,*	Allegheny,			J. J. Boyle,	Loupnex,	P. C. and St. L. Chartiers Valley Branch
Nottingham,	Washington,			James McGuire,	Hackett,	B. and O.
Oak,	Allegheny,			William Neile,	Castle Shannon,	Pittsburg and Castle Shannon
Panhandle,*	Allegheny,			W. A. Linsley,	Beadling,	P. Y. and C.
Provident,*	Washington,			W. A. Lockhart,	Huston,	P. C. and St. L. Chartiers Valley Branch
Snowden Nos. 1 and 2,†	Allegheny,			James McGuire,	Hackett,	B. and O.
Summer Hill,	Allegheny,			J. J. Boyle,	Loupnex,	P. C. and St. L. Chartiers Valley Branch
Union,*	Washington,			W. A. Lockhart,	Huston,	P. C. and St. L. Chartiers Valley Branch

*Idle.
†Abandoned.

Pittsburg-Buffalo Co.						
Bertha,	Allegheny,	D. G. Jones,	Canonsburg,	W. J. Holsing,	Canonsburg,	B. and O. P. C. and St. L. Chartiers Valley Branch
Hazel,	Washington,					
Pittsburg Terminal Railroad and Coal Co.						
A or Mine No. 1,*	Allegheny,	W. W. Keefer,	509 Wabash Building, Pittsburg,	John Mahony,	Castle Shannon,	West Side Belt
B or Mine No. 2,				John Mahony,	Castle Shannon,	
C or Mine No. 3,				John Mahony,	Castle Shannon,	
D or Mine No. 4,				Charles Karral,	Horning,	
E or Mine No. 5,*				Charles Karral,	Horning,	
F or Mine No. 6,				Charles Karral,	Horning,	
G or Mine No. 7,				Willliam Minford,	Large,	
Youghiogheny and Ohio Coal Co.						
Manifold Nos. 1 and 2,	Washington,	A. W. Osborne,	Cleveland, Ohio,	Robert McKinney,	Manifold,	P. C. and St. L. Chartiers Valley Branch
Reilly Nos. 1 and 3,†	Allegheny,			G. W. Smith,	Epton,	B. and O.
Reilly No. 2,	Allegheny,			G. W. Smith,	Epton,	B. and O.
Thompson,	Allegheny,			G. W. Smith,	Epton,	Pennsylvania and Peters Creek Branch
Crescent Coal Co.						
Peters Creek Nos. 1, 2, 3,	Allegheny,	H. E. Kinlock,	Epton,	H. E. Kinlock,	Epton,	Pennsylvania and Peters Creek Branch
United Coal Co.						
Rich Hill,	Washington,	J. D. O'Neil,	315 Fourth Avenue, Pittsburg,	William O. Clark,	Meadow Lands,	P. C. and St. L. Chartiers Valley Branch
Monongahela River Consolidated Coal and Coke Co.						
Becks Run,	Allegheny,	S. A. Scott,	8 Market Street, Pittsburg,	William Black,	Redman Mills,	P. and L. E.
Mifflin Coal Co.						
Mifflin Nos. 1 and 2,	Allegheny,	S. A. Taylor,	900 Lewis Block, Pittsburg,	Martin Long,	Duquesne,	Union
Meadow Lands Coal Co.						
Meadow Lands Nos. and 2,	Washington,	J. S. Boggs,	322 Frick Building, Pittsburg,	J. S. Boggs,	Pittsburg,	P. C. and St. L. Chartiers Valley Branch
Ollett Brothers						
Essen No. 1,	Allegheny,	Fred B. Ollett,	Presto,	Fred Ollett,	Presto,	P. C. and Y.
J. M. Greek and Co.						
Dandy,	Washington,	Edward Mooney,	Canonsburg,	Edward Mooney,	Canonsburg,	P. C. and St. L. Chartiers Valley Branch P. C. and St. L.
Sallie,*						

*Idle.
†Abandoned.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
E. R. Wise Germania,	Washington,	E. R. Wise,	Finleyville,	E. R. Wise,	Finleyville,	B. and O.
W. S. B. Hays Calhoon,	Allegheny,	W. S. B. Hays,	Homestead,	L. O. Hays,	Homestead,	None.
Paul Coal Co. Paul,	Allegheny,	J. I. Davis,	1765 West Liberty, Pittsburg,	J. I. Davis,	Pittsburg,	None.
D. A. Laughlin Rachel,*	Allegheny,	J. Rankin,	Pittsburg,	J. Rankin,	Pittsburg,	None.
Witch Hazel Coal Co. Beadling,†	Allegheny,					P. Y. and C.

*Idle.
†Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Coal Co.																
Allison,	Washington,	128,812	5,293	95	.....	134,200	.....	.....	139	213	....	....	24,500	100	.....	22
Fair Haven,	Allegheny,	107,150	3,439	1,373	.....	111,962	.....	.....	200	214	....	....	17,500	100	50	14
First Pool Nos. 1 and 3,	Allegheny,	336,981	8,250	2,102	.....	347,333	.....	.....	268	363	4	1	136,000	.....	.....	25
First Pool No. 2,	Allegheny,	237,584	6,282	.....	.....	243,866	.....	.....	162	419	....	....	39,000	.....	.....	26
Harrison,	Allegheny,	341,251	10	785	.....	342,046	.....	.....	248	426	....	4	418,625	410	250	27
Lick Run,	Allegheny,	183,448	4,187	627	.....	188,262	.....	.....	169	326	....	....	17,400	150	125	30
Midland No. 1,	Washington,	371,013	7,724	1,445	.....	380,182	.....	.....	215	477	1	....	70,000	3,000	.....	30
Midland No. 3,	Washington,	222,173	7,539	1,002	.....	230,714	.....	.....	175	329	1	....	42,300	500	.....	20
Nottingham,	Washington,	271,751	3,552	454	.....	275,757	.....	.....	223	414	1	2	245,404	600	900	34
Oak,	Allegheny,	71,869	733	116	.....	72,718	.....	.....	151	106	....	....	13,600	.....	25	7
Summer Hill,	Allegheny,	101,990	12,250	70	.....	114,310	.....	.....	138	233	....	1	119,050	.....	.....	16
Totals,		2,374,022	59,259	8,069	.....	2,441,350	.....	.....	.....	3,520	7	8	1,143,379	4,860	1,350	251
Pittsburg-Buffalo Co.																
Bertha,	Allegheny,	292,723	4,845	465	.....	298,033	.....	.....	259	258	1	9	60,000	375	.....	23
Hazel,	Washington,	452,868	16,943	2,845	.....	472,656	.....	.....	265	589	2	5	160,000	6,000	2,500	33
Totals,		745,591	21,788	3,310	.....	770,689	.....	.....	.....	847	3	14	220,000	6,375	2,500	56

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Terminal Railroad and Coal Co.																
B or Mine No. 2,	Allegheny,	187,470	6,341	885	.....	194,696	.....	.....	131	451	....	1	70,275	225	.....	31
C or Mine No. 3,	Allegheny,	78,531	2,277	275	.....	81,083	.....	.....	59	410	....	2	23,000	150	.....	31
D or Mine No. 4,	Allegheny,	.....	4,191	398	.....	4,589	.....	.....	50	13	....	....	1,000	.....	.....	7
F or Mine No. 6,	Allegheny,	140,210	6,819	1,036	.....	148,065	.....	.....	108	540	....	2	55,600	2,000	.....	30
G or Mine No. 7,	Allegheny,	283,852	4,135	510	.....	288,497	.....	.....	141	601	1	1	42,286	.....	.....	39
Totals,		690,063	23,763	3,104	.....	716,930	.....	.....	.....	2,015	1	6	192,161	2,375	.....	138
Youghiogheny and Ohio Coal Co.																
Manifold No. 1,	Washington,	252,139	16,622	554	.....	269,315	.....	.....	222	308	1	2	28,000	500	2,000	17
Manifold No. 2,	Washington,	209,312	.....	.....	.....	209,312	.....	.....	208	280	2	3	22,000	400	2,000	17
Reilly No. 2,	Allegheny,	13,966	212	24	.....	14,202	.....	.....	33	49	....	....	500	.....	.....	7
Thompson,	Allegheny,	94,877	849	.....	.....	95,726	.....	.....	149	205	....	2	8,000	300	.....	11
Totals,		570,294	17,683	578	.....	588,555	.....	.....	.....	842	3	7	58,500	1,200	4,000	52
Crescent Coal Co.																
Peters Creek No. 1,	Allegheny,	123,247	1,226	132	.....	124,605	.....	.....	289	117	....	1	8,575	10	.....	4
Peters Creek No. 2,	Allegheny,	125,280	3,115	257	.....	128,652	.....	.....	283	145	1	1	8,200	400	.....	5
Peters Creek No. 3,	Allegheny,	104,012	9	312	.....	104,333	.....	.....	273	97	1	....	8,575	327	.....	8
Totals,		352,539	4,350	701	.....	357,590	.....	.....	.....	359	2	2	25,350	737	.....	17

United Coal Co.																
Rich Hill,	Washington,	335,346	8,844	79		344,269			188	335	6	1			26,000	24
Monongahela River Consolidated Coal and Coke Co.																
Becks Run,	Allegheny,	220,262	4,304	5,648		230,214			256	312			27,500			23
Mifflin Coal Co.																
Mifflin No. 1,	Allegheny,	89,860	75	33,281		123,216			231	144	1					10
Mifflin No. 2,	Allegheny,	80,669	275			80,944			243	118	1		3,100			10
Totals,		170,529	350	33,281		204,160				262	2		3,100			20
Meadow Lands Coal Co.																
Meadow Lands No. 1,	Washington,	31,278	364			31,642			129	93	1		3,100			8
Meadow Lands No. 2,	Washington,	154,842	5,645			160,487			187	246	1	2	18,800			16
Totals,		186,120	6,009			192,129				336	2	2	21,900			24
Ollett Brothers																
Essen No. 1,	Allegheny,	72,548	600			73,148			255	88			1,825			7
J. M. Greek and Co.																
Dandy,	Washington,	38,183	1,520			39,703			98	77						7
E. R. Wise																
Germania,	Washington,	32,514	109	305		32,928			216	49	1					2
W. S. B. Hays																
Calhoon,	Allegheny,			11,305		11,305			312	12						2
Paul Coal Co.																
Paul,	Allegheny,			3,041		3,041			289	9						1
Grand totals,		5,788,011	148,579	69,421		6,006,011			9,063	27	40	1,693,715	15,547	33,850		624

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Pittsburg Coal Co.,	Allegheny, Washington,			54	7,825	7,825	4	2	15	39	6,032	32	5,867	4,253	10	16
Pittsburg-Buffalo Co.,	Allegheny, Washington,			14	2,100	2,100			23	22	8,225	7	1,040	1,095	7	2
Pittsburg Terminal Railroad and Coal Co.,	Allegheny,			37	5,550	5,550			5	28	12,066	11	4,851	2,847	7	7
Youghiogheny and Ohio Coal Co.,	Allegheny, Washington,			12	1,800	1,800			4	10	3,351	5	760	330	4	1
Crescent Coal Co.,	Allegheny,			3	450	450			6	4	625	3	2,000	1,000	3	
United Coal Co.,	Washington,			6	750	750			3	5	1,078	3	360	300	2	2
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,	2	100	3	425	525	2		2	6	425	3	20	60	3	
Mifflin Coal Co.,	Allegheny,								2		125					
Meadow Lands Coal Co.,	Washington,			7	1,050	1,050		1	2	5	350	1	400	400	1	2
Ollett Brothers,	Allegheny,			3	540	540				3	240	1	200	200		
J. M. Greek and Co.,	Washington,			3	300	300				3	290					2
Totals,		2	100	142	20,790	20,890	6	3	62	125	32,807	66	15,498	10,485	37	32

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Pittsburg Coal Co.,	Washington, Allegheny,	11	2	26	753	199	1,487	186	207	56	218	22	3,167	7	3	48	54	----	16	225	353	3,520
Pittsburg-Buffalo Co.,	Washington, Allegheny,	2	2	7	186	32	305	30	42	6	------	110	722	2	5	12	14	----	7	85	125	847
Pittsburg Terminal Railroad and Coal Co.,	Allegheny,	5	----	14	341	101	992	101	101	29	96	41	1,821	3	4	20	35	----	7	125	194	2,015
Youghiogheny and Ohio Coal Co.,	Washington, Allegheny,	5	----	9	100	34	452	34	63	10	51	------	758	3	1	12	19	----	3	46	84	842
Crescent Coal Co.,	Allegheny,	3	2	----	79	12	173	12	17	4	12	3	317	1	3	5	3	----	2	28	42	359
United Coal Co.,	Washington,	1	----	4	56	16	151	16	30	2	30	------	306	1	----	2	6	----	1	19	29	335
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,	1	----	4	76	8	130	8	25	2	12	------	266	1	----	5	9	----	1	30	46	312
Mifflin Coal Co.,	Allegheny,	2	----	----	21	11	148	11	18	7	------	10	228	1	----	6	----	----	2	25	34	262
Meadow Lands Coal Co.,	Washington,	2	----	4	76	15	140	15	23	9	13	2	299	2	1	4	9	----	1	20	37	336
Ollett Brothers,	Allegheny,	1	1	----	65	------	------	----	7	----	4	------	78	1	1	2	2	----	----	4	10	88
J. M. Greek and Co.,	Washington,	1	----	----	12	5	36	5	5	----	2	------	66	1	----	1	2	----	1	6	11	77
E. R. Wise,	Washington,	1	----	----	42	------	------	----	1	----	2	------	46	----	----	1	----	----	----	2	3	49
W. S. B. Hays,	Allegheny,	----	----	----	8	------	------	----	1	----	------	------	9	1	----	----	----	----	1	1	3	12
Paul Coal Co.,	Allegheny,	----	----	----	------	1	3	1	1	----	------	------	6	1	----	----	----	----	----	2	3	9
Totals,		35	7	68	1,815	434	4,017	419	541	125	440	188	8,089	25	18	118	153	----	42	618	974	9,063

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Pittsburg Coal Co.,	Allegheny, Washington,	7	6	7	8	11	19	23	23	22	22	21	21	190
Pittsburg-Buffalo Co.,	Allegheny, Washington,	16	17	22	23	24	23	25	26	23	22	22	19	262
Pittsburg Terminal Railroad and Coal Co.,	Allegheny,	------	------	------	------	------	6	15	12	16	19	16	14	98
Youghiogheny and Ohio Coal Co.,	Washington, Allegheny,	9	7	3	6	10	19	19	17	18	14	15	16	153
Crescent Coal Co.,	Allegheny,	20	20	19	21	25	26	26	26	24	24	26	24	281
United Coal Co.,	Washington,	------	5	8	16	6	23	25	23	23	21	20	18	188
Monongahela River Consolidated Coal and Coke Co.,	Allegheny,	20	23	27	25	25	12	10	18	24	24	24	24	256
Mifflin Coal Co.,	Allegheny,	18	11	14	13	18	12	25	26	24	26	25	25	237
Meadow Lands Coal Co.,	Washington,	4	13	11	11	3	12	13	9	17	24	22	19	158
Ollett Brothers,	Allegheny,	22	22	25	20	23	23	13	12	20	24	25	26	255
J. M. Greek and Co.,	Washington,	10	6	16	6	6	4	8	6	7	9	12	8	98
E. R. Wise,	Washington,	12	11	15	13	12	20	26	21	23	21	22	20	216
W. S. B. Hays,	Allegheny,	26	24	27	26	26	26	26	26	26	26	26	27	312
Paul Coal Co.,	Allegheny,	26	24	26	25	25	20	18	23	25	26	26	25	289

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	7	James Toward,	American,	Motorman,	24	M.	1	....	Meadow Lands No. 2,	Washington,	Instantly killed. The mule knocked him off the front end of motor, and the motor ran over him on main entry.
	8	Bernard Taggard, Jr.,	American,	Asst. supt.,	34	S.	....	....	Manifold No. 1,	Washington,	Fatally injured between mine car and coal chute on tipple. While using the block and tackle to release the car, the chain broke, breaking his leg and injuring him otherwise. Died January 23. Outside.
	11	Frank Koki,	Polish,	Loader,	32	S.	....	....	Nottingham,	Washington,	Fatally injured by fall of slate in cut-through while passing through under it.
	21	John Gaspenema,	Italian,	Loader,	39	M.	1	2	First Pool No. 3,	Allegheny,	Fatally injured by a fall of slate at face of workings while loading a car.
April	9	Anderson McConnel,	American,	Miner,	53	M.	1	2	Hazel,	Washington,	Instantly killed by fall of slate at face of workings while knocking down coal.
May	5	Jas. Mirt,	Granish,	Motorman,	19	S.	....	....	First Pool No. 1,	Allegheny,	Fatally injured. Caught between motor and mine car, when coming out of 6 face entry with trip of loaded cars.
June	3	Steve Oski,	Polish,	Miner,	36	M.	1	7	Midland No. 3,	Washington,	Instantly killed by fall of slate when drawing posts at his working face.
	19	Joseph Cklenkia,	Austrian,	Loader,	39	M.	1	5	Manifold No. 2,	Washington,	Instantly killed by fall of slate while setting post.
July	6	Joseph Miokolzley,	Slavonian,	Loader,	49	M.	1	....	Rich Hill,	Washington,	Fatally injured by fall of slate at face of room while loading car.
	10	George Barr,	Scotch,	Miner,	43	M.	1	5	Peters Creek No. 2,	Allegheny,	Instantly killed by fall of slate while knocking down coal at face of room.
	23	William Jones,	American,	Loader,	19	S.	....	....	First Pool No. 1,	Allegheny,	Instantly killed by fall of horse-back roof while making ready to set a post.
	24	John Derembis,	Granish,	Loader,	41	M.	1	....	Rich Hill,	Washington,	Fatally injured by fall of slate at face of room while loading cars.
	27	Powell Scerick,	Slavonian,	Miner,	36	M.	1	....	Mifflin No. 1,	Allegheny,	Fatally injured by fall of slate at face of working place while loading car.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Aug. 10	Luey Pehe,	Hungarian,	Loader,	45	M.	1	2	Peters Creek No. 3,	Allegheny,	Instantly killed by fall of horse-back roof while taking it down 23 yards from face of room.
25	Gindo Bertocci,	Italian,	Miner,	39	M.	1	3	Germania,	Washington,	Instantly killed by fall of slate at face of room. He went back before examining the condition of roof.
30	John Nick,	German,	Loader,	47	M.	1	1	First Pool No. 1,	Allegheny,	Instantly killed by fall of horse-back roof while knocking coal at face of room.
Sept. 2	Jas. Wilmont,	American,	Loader,	28	S.			Rich Hill,	Washington,	Instantly killed by fall of horse-back roof at face of room while loading car.
13	Peter Deadley,	American,	Loader,	35	M.	1		Rich Hill,	Washington,	Instantly killed by fall of horse-back roof while loading car at face of working place.
14	Andy Tresco,	Slavonian,	Driver,	31	1			Meadow Lands No. 1,	Washington,	Instantly killed by fall of slate when coming out on the entry with trip of loaded cars.
16	Joachim Rohr,	French,	Miner,	28				Bertha,	Allegheny,	Fatally injured by fall of coal when undermining at face of room.
21	Manifold Feidele,	Italian,	Machine-runner	24	S.			Mifflin No. 2,	Allegheny,	Electrocuted while operating an electric coal cutting machine at face of working place.
Oct. 5	John Sebelia,	Italian,	Driver,	23	M.	1	1	Rich Hill,	Washington,	Instantly killed. Caught between loaded car and coal pillar in attempting to unhook the mule and turn into the room.
19	Mike Demond,	Slavonian,	Trip runner,	19	S.			Manifold No. 2,	Washington,	Fatally injured by being run over while attempting to get on the front end of an electric locomotive opposite the four dip entry.
Nov. 18	Henry Ariallo,	Italian,	Loader,	23	S.			Midland No. 1,	Washington,	Fatally injured by fall of roof while robbing pillar, while he was inspecting a part of the roof that had already fallen.

Nov.	22	John Kobosky,	Slavonian,	Loader,	36	S.		Rich Hill,	Washington,	Instantly killed by fall of slate while loading car at face of room.
Dec.	8	Charles Marshall,	American,	Company man	19	S.		Hazel,	Washington,	Fatally injured by fall of rock roof while digging a hole in the rib for set of timbers.
	11	Dominic Flair,	Italian,	Loader,	26	S.		G or No. 7,	Allegheny,	Fatally injured by fall of slate at face of working place while knocking coal.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Feb.	4	Jno. Geakea,	Lithuanian,	Loader,	22	S.	Manifold No. 2,	Washington,	Toes smashed by fall of slate at face of room.
	10	St. Clawson,	Slavonian,	Driver,	23	S.	Bertha,	Allegheny,	Leg broken above ankle. Run over by mine car near butt entry.
	15	George Peale,	Slavonian,	Loader,	34	M.	Peters Creek No. 2,	Allegheny,	Hip crushed and leg broken by fall of slate at face of room.
	16	Louis Banoty,	Hungarian,	Loader,	36	M.	Bertha,	Allegheny,	Both legs broken by fall of slate at face of room.
March	19	Andy Franko,	Slavonian,	Machine-runner,	27	M.	Bertha,	Allegheny,	Left ankle broken by fall of roof coal at face of room.
	30	Jos. Chesy,	Hungarian,	Loader,	30	M.	Bertha,	Allegheny,	Collar bone broken by being caught between mine car and coal pillar, in room, 15 butt entry.
April	14	L. Venture,	Italian,	Driver,	25	M.	Rich Hill,	Washington,	Heel injured by being caught by mine car at face of room.
	23	Louis Rupinsky,	Polish,	Miner,	43	M.	Harrison,	Allegheny,	Back and right leg injured by fall of slate at face of room.
	27	Mike Petrio,	Greek,	Miner,	22	S.	Hazel,	Washington,	Leg broken and injured internally by fall of slate at face of room.
May	3	David Jacobs,	American,	Machine-runner,	38	M.	Hazel,	Washington,	Head injured. Struck by machine bar at face of room.
		Itnatz Usebowski,	Polish,	Loader,	32	M.	Peters Creek No. 1,	Allegheny,	Leg broken above the ankle by fall of coal at face of room.
	5	August Cerilia,	Italian,	Miner,	27	S.	Manifold No. 2,	Washington,	Arm broken and body bruised by fall of slate while robbing pillar.
	10	Nick Daydoek,	Greek,	Miner,	26	M.	Hazel,	Washington,	Head bruised and back injured by fall of slate between 32 and 33 butt entries.
	11	Jno. Brokenbaugh,	American,	Machine-runner,	48	S.	Nottingham,	Allegheny,	Leg bruised between mine car and door frame on E. face entry.
	12	Jno. Bullock,	Polish,	Loader,	29	S.	Bertha,	Allegheny,	Fracture of pelvis by fall of horse-back roof at face of room.

May	14	Mike Gingham,	Polish,	Loader,	24	M.	Bertha,	Allegheny,	Head bruised and hip dislocated by fall of slate at face of room.
	22	Alex. Merman,	Hungarian,	Miner,	45	M.	Nottingham,	Allegheny,	Right foot crushed by fall of slate while robbing pillar. Amputation was necessary.
	29	Frank Seday,	Granish,	Machine-runner,	28	S.	First Pool No. 3,	Allegheny,	Arm broken by fall of roof coal at face of room.
June	12	Mat Kawyella,	Hungarian,	Machine-runner,	22	S.	Harrison,	Allegheny,	Finger smashed by being caught in ratchet of machine at face of room.
	19	Frank Yovishe,	Lithuanian,	Loader,	32	S.	Manifold No. 2,	Washington,	Leg broken by fall of slate at face of room.
July	27	William Varga,	Hungarian,	Loader,	19	S.	Bertha,	Allegheny,	Leg broken by fall of slate at face of room.
Aug.	4	Andrew Yourish,	Lithuanian,	Loader,	23	S.	Pittsburg Terminal, No. 2.	Allegheny,	Leg broken by being caught between mine car and road post, in room on left entry.
	6	Martin Ozannish,	Granish,	Loader,	51	M.	Harrison,	Allegheny,	Left knee smashed between two mine cars at No. 7 room, No. 29 entry.
	19	Louis Brethholt,	German,	Miner,	51	S.	Thompson,	Allegheny,	Skull fractured and back injured by fall of slate at face of room.
Aug.	25	Henry Rosevelt,	American,	Miner,	48	M.	Harrison,	Allegheny,	Three ribs broken by fall of slate while robbing pillar.
Sept.	15	Frank Obeslaski,	Polish,	Miner,	28	M.	Summer Hill,	Allegheny,	Left hand smashed by being caught between post and rib, and second toe on right foot cut off by car wheel dropping on it, at No. 17 room.
	16	Joe Gordish,	Granish,	Loader,	25	S.	Pittsburg Terminal, No. 6.	Allegheny,	Leg broken by fall of coal at face of room.
	24	John Rock,	Italian,	Loader,	28	M.	Meadow Lands No. 2,	Washington,	Small bone broken in left leg by fall of coal at face of entry.
Oct.	1	Albert Helmer,	German,	Driver,	22	S.	Meadow Lands No. 2,	Washington,	Back injured by being caught between mine car and rib in butt entry.
	15	George Hall,	American,	Driver,	22	S.	Pittsburg Terminal, No. 3.	Allegheny,	Body bruised by being caught between mine car and rib in room.
	19	John Metsic,	Polish,	Laborer,	32	M.	Hazel,	Washington,	Scalp wounded, back bruised and right leg smashed by being run over by car at cross-cut, main entry. Leg had to be amputated.
	30	Andy Lelfforas,	Italian,	Driver,	27	S.	Thompson,	Allegheny,	Jaw bone broken. Kicked by a mule: at right face entry.
Nov.	1	Thomas Costelli,	Italian,	Miner,	44	M.	Pittsburg Terminal, No. 7.	Allegheny,	Arm and leg broken by fall of slate at face of room.
	6	Charles Marcus,	American,	Driver,	20	S.	Pittsburg Terminal, No. 3.	Allegheny,	Leg fractured. Caught by mining car at room, butt entry.
	7	Stephen Pratt,	American,	Fireman,	33	S.	Pittsburg Terminal, No. 6.	Allegheny,	Foot scalded by stepping in pool of hot water, in boiler house. Outside.
Dec.	2	Lewis Ulyeze,	Hungarian,	Miner,	26	S.	Manifold No. 1,	Washington,	Hands, face and leg injured. While tamping his shot the cap exploded, at face of room.

TABLE 5.—Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Dec.	4	John Wright,	American,	Cager,	21	S.	Hazel,	Washington,	Leg broken. Caught between motor and mine car at cross-cut of main face entrance.
	7	Martin Checos,	Hungarian,	Miner,	36	M.	Bertha,	Allegheny,	Collar bone dislocated by fall of roof coal while robbing pillars.
	27	Frank Namit,	Hungarian,	Miner,	39	M.	Bertha,	Allegheny,	Leg broken and knee bruised by being struck by prop while robbing pillars.
	29	Tony Connsky,	Russian,	Miner,	20	S.	Manifold No. 1,	Washington,	Leg broken and spine injured by fall of slate at face of room.

CONDITION OF MINES

PITTSBURG COAL COMPANY

Allison.—Ventilation, drainage and general condition reasonably good.

Fair Haven.—Ventilation, drainage and other conditions satisfactory.

First Pool Nos. 1 and 3.—Ventilation, drainage, travelingway and second opening, in excellent condition.

First Pool No. 2.—Ventilation, drainage and general conditions require improvement.

Harrison.—Ventilation a little sluggish at face of workings, travelingway and second means of egress a little wet and muddy.

Lick Run.—General condition of mine very good. It was a little dusty along the main tunnel, and the dust was being saturated with water by water car and removed from the mine.

Midland Nos. 1 and 3.—Ventilation weak at face of workings due to improper distribution of the air. Drainage and other conditions fair.

Nottingham.—General conditions and ventilation satisfactory.

Oak.—Ventilation and drainage reasonably good.

Summer Hill.—Ventilation, drainage, travelingway and second means of egress, very good.

PITTSBURG-BUFFALO COMPANY

Bertha.—General conditions satisfactory.

Hazel.—Ventilation and drainage good. The roads were a little dry and dusty in parts. Water pipes are used in the main intake airways for spraying the water into the atmosphere and also condensed steam and water cars are used for sprinkling, and the dust is removed from the mine. Permissible explosives have been installed and shot firers employed to do the blasting.

PITTSBURG TERMINAL RAILROAD AND COAL COMPANY

B or No. 2 Mine.—Ventilation, drainage and general conditions, reasonably good.

C or No. 3 Mine.—Ventilation a little sluggish at face of live workings. Drainage and other conditions good.

F or No. 6 Mine.—Ventilation weak at face of workings. Drainage good. Travelingway a little muddy and wet in places.

G or No. 7 Mine.—The volume of air at face of workings was not sufficient for thorough ventilation. Drainage good. Travelingway requires improvement.

YOUGHIOGHENY AND OHIO COAL COMPANY

Manifold Nos. 1 and 2.—Ventilation and drainage good. The mines were a little dusty in parts. The water wagon is used for sprinkling, and the dust is removed from the mine.

Reilly No. 2.—Idle most of the year.

Thompson.—General conditions good.

CRESCENT COAL COMPANY

Peters Creek Nos. 1, 2 and 3.—Condition reasonably good in Nos. 2 and 3. In No. 1, the volume of air was not sufficient for good ventilation.

UNITED COAL COMPANY

Rich Hill.—In good condition.

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Becks Run.—Ventilation at face of No. 1 split very weak; the other sections of mine fair. Drainage good. Parts of mine were a little dusty. Water car is used for sprinkling, and the dust is removed from mine.

MIFFLIN COAL COMPANY

Mifflin Nos. 1 and 2.—General conditions fair.

MEADOW LANDS COAL COMPANY

Meadow Lands No. 1.—Ventilation weak at face of workings. Drainage fair.

Meadow Lands No. 2.—Ventilation defective. Side of haulage-ways was obstructed with debris. The travelingway on the north side was obstructed with falls of roof, slate and water, and was not in condition for travel. Drainage defective.

OLLETT BROTHERS

Essen No. 1.—The air currents sluggish at face of live workings.

J. M. GREEK AND COMPANY

Dandy.—Conditions good.

Sallie.—Idle during the year.

E. R. WISE

Germania.—Condition of mine good.

W. S. B. HAYS

Calhoun.—General conditions fair. Not under the law.

PAUL COAL COMPANY

Paul.—Ventilation at face of working a little weak. Not under the law.

IMPROVEMENTS

PITTSBURG COAL COMPANY

Fair Haven.—Air compressor has been installed for air lift. Built twenty brick stoppings on main intake airway. Airway and side of roads have been cleaned to the extent of about 2000 feet. Manholes have been made along the main haulage-way.

Lick Run.—A boiler of 150 horse power installed outside and one hundred brick stoppings built during the year.

Nottingham.—Installed a double inlet Clifford Capell fan, 12.6 x 6 feet, and built a brick fan house. Laid 7200 feet of three-inch pipe line for boiler water supply. A new addition was also made to the barn

outside. Built fifty brick stoppings inside, two dams and two overcasts. Added one centrified pump to the equipment inside and also 1600 feet, 6-inch pipe lines.

Summer Hill.—Built sixty brick stoppings, three overcasts, and all door jambs built with brick.

UNITED COAL COMPANY

Rich Hill.—All stoppings are now being made of concrete. Two overcasts have been built. The air course has been cleaned and is being made larger where necessary. All dust and dirt are thoroughly sprinkled and removed from mine. No black powder is used in this mine for blasting purposes; No. 3 carbonite has taken its place. A No. 1, oil is used for illuminating purposes.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

Information was made against J. H. Davis on September 29, for working with an open light in the Manifold mine of the Youghiogheny and Ohio Coal Company at Manifold. The defendant waived a hearing and gave bail for court. The case was nolle prossed on payment of the costs by the defendant.

Mat. Kowchit and Frank Elkovich, who are employed at the Rich Hill mine of the United Coal Company, were arrested for passing a danger signal at the entrance of the said mine. The cases were adjusted by the defendants paying the costs of the proceedings.

Information was made against Joseph Magill, of the Arden mine No. 2 of the Meadow Lands Coal Company, charging him with allowing open lights to be used when explosive gas was being generated in such quantities as to be detected by the ordinary safety lamp, and with allowing the night shift in said mine to go to work without previously having the mine examined by the fire-boss. The defendant waived a hearing and gave bail for court. The court sentenced him to pay a fine of $1.00 and costs.

August 19, Mine Inspectors C. B. Ross, Thomas K. Adams, Elias Phillips and John I. Pratt made an inspection of Manifold mines Nos. 1 and 2 of the Youghiogheny and Ohio Coal Company, and reported to the company that explosive gas was found in dangerous quantities in the said mines and that open lights were being used and unsafe explosives used in blasting down the coal; and therefore demanded that the open lights be discontinued and that locked safety lamps be used and only those explosives used that were on the permissible list of the United States Government. From this decision the Youghiogheny and Ohio Coal Company took an appeal to the Court of Quarter Sessions of Washington County, and the said court appointed Benjamin Feriday, Jesse K. Johnston and James Blick a commission to make an inspection of the said mines and report their findings to the court. After the said commission had made an inspection of the mines, the case was amicably adjusted on the grounds that safety lamps should be used in all parts of the mines, except on a small portion of one of the mines near the outcrop, and that the safest explosives should be used for blasting purposes.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in Morehead Hall, Pittsburg April 6, 7, 8 and 9.

The Board of Examiners was composed of Charles P. McGregor, Mine Inspector; James J. Boyle, Superintendent, and S. P. McCaffrey, Mine Foreman.

There were ninety applicants examined, 34 for Mine Foremen's certificates and 56 for Fire Bosses' certificates.

The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

James W. Stoffer, John J. Delaney, Jesse Wessel, Edwin Wardle, Arthur Feehan, F. T. Fitzharris, John Lukasavitch, David Osburn, Joseph T. Gallagher, Thomas Locke, John Lamb.

EIGHTEENTH DISTRICT

CLEARFIELD, BEDFORD, HUNTINGDON AND CENTRE COUNTIES

Tyrone, Pa., February 23, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the Bituminous Mining Law, I transmit herewith my annual report as Inspector of Mines for the Eighteenth Bituminous District for the year ending December 31, 1909.

I was transferred to this District July 1, 1909, from the Twentieth District.

The report contains the usual statistical information, a brief description of the condition of the mines and the most important improvements made during the year, and a report of the annual examination of applicants for mine foremen's certificates. There was an increase in the production of coal of 199,530 tons as compared with the year 1908, a decrease of 4 fatal accidents, and an increase of 4 non-fatal accidents.

Respectfully submitted,

THOMAS S. LOWTHER,

Inspector.

43—23—1909

SUMMARY OF STATISTICS

Number of mines,	123
Number of mines in operation,	118
Number of tons of coal shipped to market,	2,922,400
Number of tons used at mines for steam and heat,	62,335
Number of tons sold to local trade and used by employes,	17,835
Number of tons used in the manufacture of coke,	50,939
Number of tons of coal produced,	3,053,509
Number of tons of coke produced,	33,238
Number of coke ovens,	480
Number of coke ovens in operation,	260
Number of tons of coal produced by pick mining,	2,639,960
Number of tons produced by compressed air machines,	410,608
Number of tons produced by electrical machines,	2,941
Number of persons employed inside of mines,	5,556
Number of persons employed outside, including coke workers,	558
Number of persons employed at manufacture of coke,	84
Number of fatal accidents inside of mines,	2
Number of fatal accidents outside,	———
Number of non-fatal accidents inside of mines,	26
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	1,526,755
Number of persons employed per fatal accident inside,	2,778
Number of persons employed per fatal accident outside,	———
Number of persons employed per non-fatal accident inside,	214
Number of persons employed per non-fatal accident outside,	279
Number of wives made widows,	2
Number of children made orphans,	2
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	2
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	12
Number of electric motors used outside,	———
Number of fans in use,	39
Number of furnaces in use,	59
Number of gaseous mines in operation,	———
Number of non-gaseous mines in operation,	118
Number of new mines opened,	3
Number of old mines abandoned,	2

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Berwind-White Coal Mining Company,	392,093
Corona Coal and Coke Company,	304,985
Carbon Coal and Coke Company,	203,935
H. B. Swoope and Company,	183,342
Rockhill Iron and Coal Company,	183,086
Grampian Coal Mining Company,	180,533
Bulah Shaft Coal Company,	113,040
S. J. Mountz and Company,	112,410
John Langdon,	94,123
Colonial Iron Company,	85,789
Clark Brothers Coal Mining Company,	83,477
Joseph E. Thropp,	81,729
Bulah Coal Company,	80,458
Whitney and Kemmerer,	70,726
Betz Coal Mining Company,	70,139
W. A. Gould and Brother,	60,778
Moshannon Coal Mining Company,	57,647
Broad Top Coal and Mineral Company,	54,927
Centre Coal and Coke Company,	51,601
Cambria Coal Mining Company,	50,040
Pemberton Coal Company,	47,754
E. J. Walker and Company,	45,150
Atlantic Coal Mining Company,	40,128
E. Eichelberger and Company,	27,508
Huntingdon Coal Company,	27,263
Standard Moshannon Coal Company,	23,997
A. J. Black,	23,360
Rocky Ridge Coal and Mining Company,	22,059
Schipper Brothers Coal Mining Company,	19,797
G. L. Whitehead Coal Company,	19,286
Commercial Coal Mining Company,	18,315
Decatur Coal Mining Company,	17,998
Blyth Coal Company,	15,981
Madeira Hill Coal Mining Company,	15,968
Clearmont Coal Mining Company,	14,658
Irish Brothers Coal Company,	12,952
H. A. Munn Company,	12,100
Franklin Coal Company, Limited,	12,039
Lulu Coal Company,	10,800
Fernwood Coal Company,	9,945
Brisbin Coal Mining Company,	8,632
Henrietta Coal Company,	8,178
Thomas Blyth,	7,704
E. J. D. Coxe,	7,610
Highland Coal Mining Company,	6,821

Osceola Fire Brick Company,	6,101
Mount Equity Coal and Coke Company,	6,063
Jacobs and Glazier,	5,929
W. R. Gallagher and Brothers,	5,729
S. O. Walker,	5,566
Leo J. Tierney,	5,272
Thomas McGlynn,	4,723
Banian Run Coal Company,	4,025
Coal Run Coal Company,	3,770
John H. Wilkinson,	3,246
Vogal and McKenzie,	3,106
John Quinn,	2,981
E. C. Brown,	2,641
White-Dugan Coal Company,	1,478
Clearfield Collieries Company,	1,218
A. Stolz,	800
Total,	3,053,509

Production by Counties

Clearfield,	1,873,618
Bedford,	417,000
Huntingdon,	463,717
Centre,	299,174
Total,	3,053,509

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Berwind-White Coal Mining Co.,	1		1	8		8	392,093	49,012	515	64	579	515		64	
Corona Coal and Coke Co.,	1		1	2		2	304,985	152,492	443	33	476	443		222	
Carbon Coal and Coke Co.,				4		4		50,984	461	33	494			115	
Rockhill Iron and Coal Co.,				3		3		61,029	388	35	423			129	
Grampian Coal Mining Co.,				1		1		180,533	229	6	235			229	
John Langdon,				1		1		94,123	156	15	171			156	
Joseph E. Thropp,					1	1			352	134	486				134
Bulah Coal Co.,				2		2		40,299	129	12	141			65	
Atlantic Coal Mining Co.,					1	1			75	7	82				7
Commercial Coal Mining Co.,				1		1		18,315	38	4	42			38	
Decatur Coal Mining Co.,				1		1		17,998	53		53			53	
John H. Wilkinson,				2		2		1,623	5		5			3	
Clearfield Collieries Co.,				1		1		1,218	25	1	26			25	
Miscellaneous Companies,									2,687	214	2,901				
Totals and averages for district,	2		2	26	2	28	1,526,755	117,443	5,556	558	6,114	2,778		214	279

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	----	----	----	----	----	----	----	1	----	----	1	50.00
Falls of roof,	----	----	1	----	----	----	----	----	----	----	----	----	1	50.00
Totals,	----	----	1	----	----	----	----	----	----	1	----	----	2	100.00
Causes of Accidents Outside (No Accidents)														

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	1	----	1	----	----	1	----	1	----	----	1	7	26.92
Falls of slate,	----	----	----	----	----	----	----	----	----	----	----	1	1	3.85
Falls of roof,	----	1	1	----	----	2	----	----	----	----	----	2	6	23.07
Mine cars,	----	1	----	----	----	----	3	1	2	----	----	1	8	30.76
Explosions of powder and dynamite,	----	----	----	----	----	----	----	----	----	----	1	----	1	3.85
Blasts, premature and otherwise,	----	----	----	1	----	----	----	----	----	----	----	----	1	3.85
Mules,	----	----	1	----	----	----	----	----	----	----	----	----	1	3.85
Miscellaneous,	----	----	----	----	----	----	----	1	----	----	----	----	1	3.85
Totals,	2	3	2	2	----	2	4	2	3	----	1	5	26	100.00
Causes of Accidents Outside														
Cars,	2	----	----	----	----	----	----	----	----	----	----	----	2	100.00
Totals,	2	----	----	----	----	----	----	----	----	----	----	----	2	100.00
Grand totals inside and outside,	4	3	2	2	----	2	4	2	3	----	1	5	28	------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	----	----	1	----	----	----	----	----	----	1	----	----	2
Totals,	----	----	1	----	----	----	----	----	----	1	----	----	2
Outside (No Accidents)													

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	2	1	1	2	----	2	3	1	1	----	1	3	17
Machine loaders,	----	1	----	----	----	----	----	----	----	----	----	----	1
Drivers and runners,	----	1	1	----	----	----	1	1	1	----	----	2	7
Tripriders,	----	----	----	----	----	----	----	----	1	----	----	----	1
Totals,	2	3	2	2	----	2	4	2	3	----	1	5	26
Outside													
Tripriders,	1	----	----	----	----	----	----	----	----	----	----	----	1
Miners,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	2	----	----	----	----	----	----	----	----	----	----	----	2
Grand totals inside and outside,	4	3	2	2	----	2	4	2	3	----	1	5	28

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Irish,	----	----	----	----	----	----	----	----	----	1	----	----	1
Polish,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	----	----	1	----	----	----	----	----	----	1	----	----	2

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	2	2	----	----	----	----	----	----	3	----	----	3	10
Welsh,	----	----	----	----	----	----	1	----	----	----	----	----	1
Irish,	----	----	1	----	----	----	1	1	----	----	----	----	3
German,	----	----	----	1	----	----	----	----	----	----	----	----	1
Polish,	1	----	----	----	----	----	----	----	----	----	----	----	1
Italian,	----	1	----	----	----	1	----	----	----	----	----	1	3
Slavonian,	1	----	----	1	----	1	1	1	----	----	1	1	7
Russian,	----	----	----	----	----	----	1	----	----	----	----	----	1
French,	----	----	1	----	----	----	----	----	----	----	----	----	1
Totals,	4	3	2	2	----	2	4	2	3	----	1	5	28

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Berwind-White Coal Mining Co.																
Eureka No. 7,	Shaft,	Non-gas.	Fan,	16	4.5	4.8	75	.8	Brazil,	Steam,		2	70,000	35,000	71,700	79
Eureka No. 16,	Drift,	Non-gas.	Fan and Furnace,	10	3.5	4	75	.4	Brazil,	Steam,	42	2	29,500	16,800	30,000	49
Eureka No. 22,	Drift,	Non-gas.	Fan,	12	2.	2.8	85	.5	Stine,	Steam,		3	45,000	15,000	45,400	54
Eureka No. 27,	Drift,	Non-gas.	Furnace,								80	3	23,400	18,000	24,000	94
Eureka No. 28,	Shaft,	Non-gas.	Fan,	11.5	7	4.5	12[illegible]	1.5	Capell,	Steam,		8	90,000	67,000	92,000	239
Coal and Coke Co.																
Bucher,	Drift,	Non-gas.	Fan,	12	4	3	60	.8	New Stine,	Steam,		2	45,000	26,000	45,300	120
Corona,	Drift,	Non-gas.	Furnace,								48	2	20,000	10,600	21,800	61
Davis,	Drift,	Non-gas.	Furnace,								48	2	13,500	8,000	14,000	124
White Oak,	Slope,	Non-gas.	Fan,	8	1.5	3	60	.5	Stine,	Steam,		1	18,600	10,500	19,240	33
Hegarty,	Drift,	Non-gas.	Furnace,								40	1	15,000	9,000	16,500	36
Shoff No. 3,	Drift,	Non-gas.	Furnace,								60	2	14,600	8,500	15,300	69
Carbon Coal and Coke Co.																
Cambria No. 3,	Shaft,	Non-gas.	Fan,	15	3	3	100	1.5	Guibal,	Electricity,		2	25,000	18,000	25,750	162
Ocean No. 2,	Drift,	Non-gas.	Furnace,								36	1	9,450	6,200	10,000	40
Ocean No. 3,	Drift,	Non-gas.	Furnace,								36	2	12,850	9,800	13,000	85
Ocean No. 4,	Drift,	Non-gas.	Fan,	10	3	2.8	60	1	Brazil,	Steam,		2	19,500	12,600	20,200	100

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Ocean No. 5,	Drift,	Non-gas.	Furnace,								36	1	*			7
Carbon No. 1,	Drift,		Furnace,								30		3,900	2,500	4,000	23
Carbon No. 4,	Drift,		Furnace,								36		5,000	4,000	5,400	44
H. B. Swoope and Co.																
Sylvania,	Drift,	Non-gas.	Furnace,								48 36	2	10,600	8,200	13,000	102
Morgan Run,	Drift,		Furnace,								48	2	8,750	6,400	9,000	62
No. 18 Colliery,	Drift,		Furnace,								60	2	7,500	5,000	7,600	44
King,	Drift,		Furnace,								40		3,300	1,400	3,500	22
Beccaria,	Drift,		Natural,										*			7
Rockhill Iron and Coal Co.																
Robertsdale Slope,	Slope,	Non-gas.	Fan,	16	4	3	100	1.8	Brazil,	Steam,		2	42,000	32,000	43,000	182
Woodvale Shaft,	Shaft,	Non-gas.	Fan,	16	4	3	85	1	Brazil,	Steam,		4	45,000	35,000	45,300	206
Grampian Coal Mining Co.																
Penn No. 4,	Drift,	Non-gas.	Furnace,								45	2	20,000	12,000	22,000	67
Penn No. 5,	Drift,	Non-gas.	Furnace,								63	2	26,000	14,200	28,600	162
Bulah Shaft Coal Co.																
Bulah Shaft No. 1,	Shaft,	Non-gas.	Fan,	13	3.8	3.3	90	.7	Brazil,	Steam,		3	33,000	31,000	34,000	173

*Not under the law.

S. J. Mountz and Co.																
Viola,	Slope,	Non-gas.	Fan,	16	4.5	4	60	.3	Brazil,	Steam,		2	37,000	19,000	39,000	132
Whiteside No. 1,	Drift,	Non-gas.	Furnace,								30		7,340	5,400	7,500	32
John Langdon																
Cambria No. 1,	Drift,	Non-gas.	Natural,										9,750	6,240	10,000	46
Chevington No. 2,	Slope,		Fan,	7	1.8	3	150	.3	Stine,	Steam,		2	11,550	7,500	11,800	42
Glendale No. 1,	Slope,		Fan,	12	4	3	60	.4	Brazil,	Steam,		2	11,000	5,500	11,160	50
Glendale No. 2,	Drift,		Furnace,								12		1,740	1,000	1,800	9
Duval Slope,	Slope,		Fan,	12	4	3	60	.6	Brazil,	Steam,		2	7,200	6,000	7,000	9
Colonial Iron Co.																
Judith,	Slope,	Non-gas.	Fan,	16	4	3.5	65	.7	Brazil,	Steam,		2	45,000	32,500	46,000	154
Clark Brothers Coal Mining Co.																
Falcon No. 1,	Drift,	Non-gas.	Furnace,								25	2	9,500	7,500	9,800	68
Falcon No. 2,			Fan,	7	2	2.5	110	.6	Stine,	Steam,		2	28,000	14,000	28,000	30
Falcon No. 4,			Furnace,								36		13,400	8,000	14,000	28
Joseph E. Thropp																
Kearney Slope,	Slope,	Non-gas.	Fan,	12	3.3	3	98	.5	Guibal,	Steam,		1	26,000	11,200	26,400	100
Kearney Barnett,	Drift,		Furnace,								24		6,000	3,000	8,000	9
Melrose Nos. 1, 2 and 3,	Drift,		Furnace,								24	1	9,000	7,000	12,000	119
Gordon,	Slope,		Fan,	10	3	2.5	80	.7	Guibal,	Steam,		1	18,000	14,200	18,500	124
Bulah Coal Co.																
Webster No. 4,	Drift,	Non-gas.	Fan,	7	3	3	120	.8	Stine,	Steam,		2	20,000	16,500	20,400	129
Whitney and Kemmerer																
Whitney No. 1,	Slope,	Non-gas.	Fan,	10	2.5	4	75	.7	Stine,	Steam,		2	19,000	12,500	19,200	81
Betz Coal Mining Co.																
Betz No. 2,	Drift,	Non-gas.	Fan,	10	2.5	4	100	.6	Stine,	Steam,		2	30,000	14,000	31,000	94
W. A. Gould and Brother																
Midvale No. 1,	Drift,	Non-gas.	Natural,										6,400	4,000	6,750	41
Midvale No. 2,	Drift,		Natural,										*			8
Midvale No. 3,	Drift,		Furnace,								24		7,500	2,800	7,700	29
Loraine,	Drift,		Natural,										2,000	1,400	2,400	8
Goss Run,	Drift,		Natural,										*			8
Henderson No. 5,	Slope,		Fan,	7	2	2.8	75	.5	Stine,	Steam,		1	9,500	6,000	9,860	17
Moshannon Coal Mining Co.																
Lenore Nos. 1 and 2,	Drift,	Non-gas.	Furnace,								25		6,000	4,200	6,400	45
Moshannon No. 1,			Furnace,								16		3,800	3,000	4,000	19

*Not under the law.

TABLE I.—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Moshannon No. 4,	Drift,	Non-gas.	Furnace,								12		*			4
Moshannon No. 7,			Natural,										*			3
Moshannon No. 9,			Furnace,								16		7,300	4,500	7,500	28
Broad Top Coal and Mineral Co.																
Jacobs,	Drift,	Non-gas.	Fan,	7	4	2.5	200	.6		Steam,		2	19,000	14,000	21,600	79
Centre Coal and Coke Co.																
Weston,	Drift,	Non-gas.	Fan,	7	2	2.8	200	.7	Stine,	Steam,			11,500	7,500	12,200	65
Cambria Coal Mining Co.																
Leeland No. 1,	Drift,	Non-gas.	Fan,	16	4	4	90	.8	Brazil,	Steam,		2	31,400	12,600	32,000	57
Leeland No. 2,			Furnace,										*			4
Leeland No. 6,			Furnace,								36		5,000	2,400	5,500	7
Leeland No. 7,			Fan,	14	4	4	85	.6	Brazil,	Steam,		1	16,300	7,400	17,400	28
Leeland No. 8,			Fan,	6	1.6	2.4	225	.5	Stine,	Gasoline,			12,400	7,000	13,000	21
Leeland No. 9,			Furnace,								38		6,500	5,400	7,400	35
Leeland No. 10,			Furnace,								38		6,200	5,000	7,400	29
Pemberton Coal Co.																
Pemberton,	Drift,	Non-gas.	Furnace,								30		8,000	4,500	10,000	71

*Not under the law.

E. J. Walker and Co.																	
Troy,	Drift,	Non-gas.	Furnace,									50		2,850	2,000	3,000	10
Stanley,	Drift,	Non-gas.	Furnace,									24		7,200	4,260	7,980	49
Atlantic Coal Mining Co.																	
Cross Keys,	Drift,	Non-gas.	Furnace,									60	2	14,000	8,000	14,300	75
E. Eichelberger and Co.																	
Bacon No. 2,	Drift,	Non-gas.	Fan,	7	4	2	180	.7	Stine,	Steam,				20,000	12,000	20,500	62
Huntingdon Coal Co.																	
Delaware No. 1,	Slope,	Non-gas.	Fan,	16	4	4	75	.5	Brazil,	Steam,				39,000	22,000	39,400	54
Delaware No. 2,	Slope,	Non-gas.	Fan,											4,000	2,000	4,500	15
Standard Moshannon Coal Co.																	
Standard No. 4,	Drift,	Non-gas.	Fan,	6	2	2.5	420	.8	Stine,	Gasoline,				20,000	14,600	20,200	47
A. J. Black																	
Black No. 2,	Drift,	Non-gas.	Furnace,									45		3,750	3,500	4,000	8
Black No. 3,	Drift,	Non-gas.	Furnace,									50		8,000	5,000	8,200	35
Rocky Ridge Coal and Mining Co.																	
Wrays Hill,	Drift,	Non-gas.	Furnace,									30		5,500	4,500	5,750	38
Louise,	Slope,	Non-gas.	Steam,											4,000	3,000	4,500	26
Schipper Brothers Coal Mining Co.																	
Lady Smith Nos. 1 and 2,	Drift,	Non-gas.	Fan,	5	1.5	2	200	.6	Clark,	Gasoline,				10,000	6,000	10,200	39
Lady Smith Nos. 3 and 4,	Drift,	Non-gas.	Natural,											2,400	2,000	2,500	9
G. L. Whitehead Coal Co.																	
Peerless No. 4,	Drift,	Non-gas.	Furnace,									42	2	6,000	2,300	6,480	44
Commercial Coal Mining Co.																	
Commercial No. 1,	Drift,	Non-gas.	Fan,	12	4	3	65	.5	Brazil,	Steam,			3	31,000	23,000	31,600	38
Decatur Coal Mining Co.																	
Decatur No. 11,	Drift,	Non-gas.	Furnace,									30		7,000	5,400	7,200	53
Blyth Coal Co.																	
Blyth Shaft,	Shaft,	Non-gas.	Steam,											5,550	3,400	7,000	35

*Not under the law.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Madeira Hill Coal Mining Co.																
Elizabeth No. 1,	Slope,	Non-gas.	Fan,	8	2.5	4	250	.6	Pie,	Steam,		1	25,000	14,000	25,700	68
Clearmont Coal Mining Co.																
Clearmont,	Slope,	Non-gas.	Furnace,								36		10,000	7,500	11,000	36
Irish Brothers Coal Co.																
Industry,	Drift,	Non-gas.	Natural,										4,000	3,000	4,200	14
Niagara,	Drift,	Non-gas.	Furnace,										2,000	1,500	2,500	3
H. A. Munn Co.																
Benedict,	Drift,	Non-gas.	Furnace,								32		4,500	2,000	6,000	26
Franklin Coal Co., Limited																
Sterling No. 2,	Drift,	Non-gas.	Furnace,										4,800	2,000	5,000	15
Lulu Coal Co.																
Schwim,	Drift,	Non-gas.	Natural,										6,100	2,000	6,400	16
Fernwood Coal Co.																
Mt. Vernon No. 10,	Drift,	Non-gas.	Furnace,								48		7,200	2,100	7,500	20

Brisbin Coal Mining Co.																
Mascot,	Drift,	Non-gas.	Furnace,								30		3,740	2,500	4,000	10
Henrietta Coal Co.																
Henrietta No. 3,	Slope,	Non-gas.	Fan,	16	4	4	40	.3	Brazil,	Steam,			25,000	14,000	25,750	11
Thomas Blyth																
Alexander,	Drift,	Non-gas.	Furnace,								36		3,900	2,400	4,000	9
E. J. D. Coxe																
Elizabeth No. 1,	Slope,	Non-gas.	Fan,	8	2.5	4	250	.6		Steam,		1	25,000	13,500	25,400	73
Highland Coal Mining Co.																
Highland No. 3,	Drift,	Non-gas.	Natural,										8,500	4,000	7,500	20
Highland No. 4,	Drift,	Non-gas.	Natural,										3,200	2,400	3,550	9
Osceola Fire Brick Co.																
Burns No. 2,	Drift,	Non-gas.	Furnace,								25		3,800	2,200	4,000	8
Mount Equity Coal and Coke Co.																
Mount Equity Nos. 1, 2 and 3,	Drift,	Non-gas.	Fan,	7	2.5	1.5	250	.4		Compressed Air		3	20,000	14,000	20,600	80
Jacobs and Glazier																
Victoria,	Drift,	Non-gas.	Natural,										*			8
W. R. Gallagher and Brothers																
Black Oak,	Drift,	Non-gas.	Furnace,								30		11,500	6,750	11,600	12
S. O. Walker																
Big Run,	Drift,	Non-gas.	Furnace,								30		5,800	5,000	6,000	23
Leo J. Tierney																
Bartle,	Drift,	Non-gas.	Furnace,								30		4,640	3,000	5,000	24
Thomas McGlynn																
Yorkshire No. 2,	Slope,	Non-gas.	Steam,										9,280	4,000	11,250	11
Banian Run Coal Co.																
Standard No. 7,	Drift,	Non-gas.	Furnace,										1,950	1,650	2,000	8
Coal Run Coal Co.																
Coal Run No. 1,	Drift,	Non-gas.	Furnace,								20		2,200	3,000	2,500	8
Coal Run No. 2,	Drift,	Non-gas.	Furnace,								24		5,300	4,000	5,500	14

*Not under the law.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
John H. Wilkinson Shoff Nos. 1 and 2,	Drift,	Non-gas.	Natural,										*			5
Vogal and McKenzie Birdseye,	Drift,	Non-gas.	Natural,										1,500	1,200	1,640	8
John Quinn McCartney No. 3,	Drift,	Non-gas.	Furnace,								54		9,000	6,500	9,900	9
E. C. Brown Kenmar Nos. 2 and 3,	Slope,	Non-gas.	Fan,	12	3	3	75	.4	Guibal,	Steam,			9,500	7,000	10,200	14
White-Dugan Coal Co. Celtic,	Drift,	Non-gas.	Furnace,								30		7,000	4,500	7,200	11
Clearfield Collieries Co. Reliance,	Drift,	Non-gas.	Furnace,								30		6,750	3,400	7,000	25
A. Stolz Katherine,	Drift,	Non-gas.	Furnace,								20		4,500	2,200	5,000	13

*Not under the law.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches		Approximate number of tons produced by machines
								Thickest	Thinnest	
Berwind-White Coal Mining Co.,	Eureka No. 28,	Shaft,		27	Compressed Air,	B, or Lower Kittanning	56	60	48	205,377
Corona Coal and Coke Co.,	Bucher,	Drift,		10	Compressed Air,	B, or Lower Kittanning	46	58	42	72,650
	White Oak,	Slope,		5			48	62	36	2,050
Totals,				15						74,700
H. B. Swoope and Co.,	Sylvania,	Drift,		10	Compressed Air,	B, or Lower Kittanning	56	62	36	78,500
Clark Brothers Coal Mining Co.,	Falcon No. 2,	Drift,		2	Electricity,	D, or Mosshannon	33	36	30	2,941
Joseph E. Thropp,	Kearney Slope,	Slope,		6	Compressed Air,	C. or Upper Kittanning	45	60	34	6,091
Betz Coal Mining Co.,	Betz No. 2,	Drift,		9	Compressed Air,	B, or Lower Kittanning	48	56	40	42,200
Madeira Hill Coal Mining Co.,	Elizabeth No. 1,	Slope,		2	Compressed Air,	B, or Lower Kittanning	44	60	37	1,815
E. J. D. Coxe,	Elizabeth No. 1,	Slope,		5	Compressed Air,	B, or Lower Kittanning,	44	60	37	1,925
Grand totals,				76						413,549

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Berwind-White Coal Mining Co.						
Eureka Nos. 7, 16, 22, 27, 28,	Clearfield,	Thomas Fisher,	Philadelphia,	W. R. Cameron,	Houtzdale,	Pennsylvania
Corona Coal and Coke Co.						
Bucher,	Clearfield,	H. B. Swoope,	Madera,	John Stephenson,	Madera,	Pennsylvania
Corona,						
Davis,						
White Oak,						
Hegarty,						
Shoff No. 3,				William Hill,	Langdondale,	N. Y. C. and H. R.
Carbon Coal and Coke Co.						
Cambria No. 3,	Bedford,	W. W. E. Shannon,	Saxton,	Daniel Ryan,	Dudley,	N. Y. C. and H. R.
Ocean Nos. 2, 3, 4, 5,	Huntingdon,					H. and B. T. M.
Carbon No. 1,						
Carbon No. 4,						
H. B. Swoope and Co.						
Sylvania,	Clearfield,	H. B. Swoope,	Madera,	John Stephenson,	Madera,	Pennsylvania
Morgan Run,						
No. 18 Colliery,						
King,						
Beccaria,						
Rockhill Iron and Coal Co.						
Robertsdale Slope,	Huntingdon,	John S. Sommerville	Robertsdale,			East Broad Top
Woodvale Shaft,						
Grampian Coal Mining Co.						
Penn Nos. 4 and 5,	Centre,			A. K. Wright,	Clearfield,	Pennsylvania
Bulah Shaft Coal Co.						
Bulah Shaft No. 1,	Clearfield,	James H. Minds,	Ramey,	James H. Minds,	Ramey,	Pennsylvania, P. and S. V.

S. J. Mountz and Co. Viola, Whiteside No. 1,	Clearfield,	S. J. Mountz,	Morann,				Pennsylvania
John Langdon Cambria No. 1, Chevington No. 2, Glendale Nos. 1 and 2, Duval Slope,	Bedford,	Chester J. Langdon,	Hopewell,	W. H. Speer,	Hopewell,		H. and B. T. M.
Colonial Iron Co. Judith,	Bedford,	William Lauder,	Riddlesburg,	J. C. Allen,	Riddlesburg,		H. and B. T. M.
Clark Brothers Coal Mining Co. Falcon Nos. 1, 2 and 4,	Clearfield,	J. O. Clark.	Glen Campbell,	J. H. Miller,	Smoke Run,		Pennsylvania
Joseph E. Thropp Kearney Slope, Kearney Barnett, Melrose Nos. 1, 2 and 3, Gordon,	Bedford, Huntingdon,	R. H. Kay,	Saxton,	R. H. Kay,	Saxton,		H. and B. T. M.
Bulah Coal Co. Webster No. 4,	Clearfield,	James H. Minds,	Ramey,	James H. Minds,	Ramey,		Pennsylvania
Whitney and Kemmerer Whitney No. 1,	Clearfield,			F. F. Kramp,	Ramey,		Pennsylvania
Betz Coal Mining Co. Betz No. 2,	Clearfield,	Robert Lowrie,	Philadelphia,	W. E. Pollock,	Madera,		Pennsylvania
W. A. Gould and Brother Midvale Nos. 1 and 2, Midvale No. 3, Loraine, Goss Run, Henderson No. 5,	Clearfield,	W. A. Gould,	Brisbin,	John Gould, William Patterson, Thomas Wynn,	Brisbin, McCartney, Brisbin,		Pennsylvania
Moshannon Coal Mining Co. Lenore Nos. 1 and 2, Moshannon Nos. 1 and 4, Moshannon Nos. 7 and 9,	Clearfield,	A. S. Brown,	Osceola Mills,	J. L. Reeves,	Osceola Mills,		Pennsylvania
Broad Top Coal and Mineral Co. Jacobs,	Huntingdon,	R. W. Jacobs,	Huntingdon,	J. M. Starr,	Jacobs,		East Broad Top

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Centre Coal and Coke Co. Weston,	Centre,	A. S. Brown,	Osceola Mills,	J. L. Reeves,	Osceola Mills,	Pennsylvania
Cambria Coal Mining Co. Leeland Nos. 1, 2 and 6, Leeland No. 7, Leeland No. 8, Leeland Nos. 9 and 10,	Clearfield	R. F. Nevling,	Beccaria,	Dowey Evans, J. C. Gatehouse, Thomas Turnbull, Duncan Somerville,	Beccaria, Ventland, Beccaria, Beccaria,	Pennsylvania
Pemberton Coal Co. Pemberton,	Centre,	Thomas C. Whitehead	Altoona,	Charles S. Askew,	Osceola Mills.	Pennsylvania
E. J. Walker and Co. Troy, Stanley,	Clearfield	E. J. Walker,	Brisbin,			Pennsylvania
Atlantic Coal Mining Co. Cross Keys,	Clearfield,	C. D. Loraine,	Philipsburg,			Pennsylvania
E. Eichelberger and Co. Bacon No. 2,	Bedford,			W. S. Williams,	Six Mile Run,	H. and B. T. M.
Huntingdon Coal Co. Delaware Nos. 1 and 2,	Bedford,			Daniel Everhart,	Six Mile Run,	H. and B. T. M.
Standard Moshannon Coal Co. Standard No. 4,	Clearfield,			Thomas Richardson,	Houtzdale,	Pennsylvania
A. J. Black Black Nos. 2 and 3,	Huntingdon,	A. J. Black,	Broad Top,	A. J. Black,	Broad Top,	H. and B. T. M.
Rocky Ridge Coal and Mining Co. Wrays Hill, Louise,	Huntingdon,	M. E. Stoner,	Chambersburg,	C. E. Hoke, E. F. Gould, Sr.,	Chambersburg, Dudley	East Broad Top H. and B. T. M.

Schipper Brothers Coal Mining Co. Lady Smith Nos. 1, 2, 3 and 4,	Bedford,	I. John Schipper,	Six Mile Run,	John McIntire,	Six Mile Run,	H. and B. T. M.
G. L. Whitehead Coal Co. Peerless No. 4,	Centre,	G. L. Whitehead,	Osceola Mills,	James Dugan,	Osceola Mills,	Pennsylvania
Commercial Coal Mining Co. Commercial No. 1,	Bedford,	William M. Smith,	Ebensburg,	James M. McIntire,	Six Mile Run,	H. and B. T. M.
Decatur Coal Mining Co. Decatur No. 11,	Clearfield,			John Christoff,	Houtzdale,	P. and S. V.
Blyth Coal Co. Blyth Shaft,	Clearfield,			W. S. Blyth,	Madera,	Pennsylvania
Maderia Hill Coal Mining Co. Elizabeth No. 1,	Clearfield,	R. H. Buchanan,	Philipsburg,	R. H. Buchanan,	Philipsburg,	Pennsylvania
Clearmont Coal Mining Co. Clearmont,	Clearfield,	William M. Scott,	Houtzdale,	Benjamin Badman,	Houtzdale,	Pennsylvania
Irish Brothers Coal Co. Industry, Niagara,	Clearfield,	George Scott,	Philipsburg,	H. B. Scott,	Philipsburg,	Pennsylvania
H. A. Munn Co. Benedict,	Huntingdon,	W. H. Reed,	Dudley,			H. and B. T. M.
Franklin Coal Co., Limited Sterling No. 2,	Clearfield,			James McPhilomy,	Brisbin,	Pennsylvania
Lulu Coal Co. Schwim,	Clearfield,			Gust Pearson,	Osceola Mills,	P. and S. V.
Fernwood Coal Co. Mt. Vernon No. 10,	Clearfield,			M. J. Kelly,	Ramey,	P. and S. V.
Brisbin Coal Mining Co. Mascot,	Clearfield,	Asa Spencer,	Philipsburg,			Pennsylvania
Henrietta Coal Co. Henrietta No. 3,	Clearfield,	Asa Spencer,	Philipsburg,			Pennsylvania

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Thomas Blyth Alexander,	Clearfield,	Thomas Blyth,	Madera,	Thomas Blyth,	Madera,	Pennsylvania
E. J. D. Coxe Elizabeth No. 1,	Clearfield,	E. J. D. Coxe,	Houtzdale,	Samuel Gallagher,	Houtzdale,	Pennsylvania
Highland Coal Mining Co. Highland Nos. 3 and 4,	Bedford,	A. Bathgate,	Rosebud,	Thomas Bathgate,	Six Mile Run,	H. and B. T. M.
Osceola Fire Brick Co. Burns No. 2,	Clearfield,			Guy Sankey,	Osceola Mills,	Used by Company
Mount Equity Coal and Coke Co. Mount Equity Nos. 1, 2 and 3,	Bedford,	C. R. Savidge,	Sunbury,	R. W. E. Savidge,	Riddlesburg,	H. and B. T. M.
Jacobs and Glazier Victoria,	Huntingdon,	R. W. Jacobs,	Huntingdon,	J. L. Connard,	Jacobs,	East Broad Top
W. R. Gallagher and Brothers Black Oak,	Clearfield,	W. R. Gallagher,	Smith Mill,	W. R. Gallagher,	Smith Mill,	Pennsylvania
S. O. Walker Big Run,	Clearfield,	Alton H. Nelson,	Philipsburg,	Alton H. Nelson,	Philipsburg,	Pennsylvania
Leo J. Tierney Bartle,	Bedford,	Thomas S. Wilson,	Saxton,			H. and B. T. M.
Thomas McGlynn Yorkshire No. 2,	Clearfield,	Thomas McGlynn,	Madera,	Thomas McGlynn,	Madera,	Pennsylvania
Banian Run Coal Co. Standard No. 7,	Clearfield,			L. W. Beyer,	Smoke Run,	Pennsylvania
Coal Run Coal Co. Coal Run Nos. 1 and 2,	Clearfield,	J. Swires,	Philipsburg,	J. Swires,	Philipsburg,	Pennsylvania

John H. Wilkinson Shoff Nos. 1 and 2,	Clearfield,			John H. Wilkinson,	Houtzdale,	Pennsylvania
Vogal and McKenzie Birdseye,	Clearfield,	Alex. McKenzie,	Houtzdale,	Alex. McKenzie,	Houtzdale,	Pennsylvania
John Quinn McCartney No. 3,	Clearfield,			John Quinn,	Houtzdale,	Pennsylvania
E. C. Brown Kenmar Nos. 2 and 3,	Bedford,	E. C. Brown,	Patton,	F. V. Alstadt,	Defiance,	H. and B. T. M.
White-Dugan Coal Co. Celtic,	Clearfield,	F. K. White,	Philipsburg,	Martin Dugan,	Osceola Mills,	Pennsylvania
Clearfield Collieries Co. Reliance,	Clearfield,	A. W. Bigler,	Clearfield,	William G. Tyler,	Brisbin,	Pennsylvania
A. Stolz Katherine,	Clearfield,	A. Stolz,	Houtzdale,			Pennsylvania

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Berwind-White Coal Mining Co.																
Eureka No. 7,	Clearfield,	48,752	5,977	589	.....	55,318	.....	.....	211	91	....	4	3,675	.....	.....	15
Eureka No. 16,	Clearfield,	29,975	1,283	124	.....	31,382	.....	.....	187	56	1	....	3,300	64	.....	16
Eureka No. 22,	Clearfield,	43,634	1,197	70	.....	44,901	.....	.....	264	62	....	....	4,550	181	.....	.....
Eureka No. 27,	Clearfield,	54,767	333	15	.....	55,115	.....	.....	177	100	....	....	5,050	293	.....	8
Eureka No. 28,	Clearfield,	193,108	12,002	267	.....	205,377	.....	.....	211	270	....	4	20,375	.....	.....	31
Totals,		370,236	20,792	1,065	.....	392,093	.....	.....	.....	579	1	8	36,950	538	.....	70
Corona Coal and Coke Co.																
Bucher,	Clearfield,	77,785	2,619	94	.....	80,498	.....	.....	243	138	1	....	*	.....	.....	19
Corona,	Clearfield,	54,663	177	72	.....	54,912	.....	.....	223	64	....	1	.....	.....	.....	12
Davis,	Clearfield,	47,650	319	16	.....	47,985	.....	.....	179	128	....	....	.....	.....	.....	12
White Oak,	Clearfield,	40,606	984	80	.....	41,670	.....	.....	234	37	....	1	.....	.....	.....	6
Hegarty,	Clearfield,	8,035	72	7	.....	8,114	.....	.....	67	36	....	....	.....	.....	.....	2
Shoff No. 3,	Clearfield,	71,483	304	19	.....	71,806	.....	.....	272	73	....	....	.....	.....	.....	9
Totals,		300,222	4,475	288	.....	304,985	.....	.....	.....	476	1	2	.....	.....	.....	60
Carbon Coal and Coke Co.																
Cambria No. 3,	Bedford,	81,161	2,392	202	.....	83,755	.....	.....	163	182	....	....	21,250	500	.....	20
Ocean No. 2,	Huntingdon,	17,420	50	200	.....	17,670	.....	.....	127	41	....	1	4,300	1,580	.....	7
Ocean No. 3,	Huntingdon,	31,020	75	1,000	.....	32,095	.....	.....	128	88	....	1	5,840	1,640	.....	7

*No record kept.

Ocean No. 4,	Huntingdon,	37,960	125	200		38,285			112	105		1	9,120	2,560		7
Ocean No. 5,		1,820	25			1,845			101	7			750	220		1
Carbon No. 1,		8,275	50			8,325			241	25		1	1,840	770		2
Carbon No. 4,		21,910	50			21,960			244	46			3,860	950		3
Totals,		199,566	2,767	1,602		203,935				494		4	46,960	8,220		47
H. B. Swoope and Co.																
Sylvania,	Clearfield,	87,523	3,719	52		91,294			243	110			*			24
Morgan Run,		45,991	220	19		46,230			248	64						9
No. 18 Colliery,		35,222	417	74		35,713			226	45						12
King,		7,651	119	39		7,809			221	22						2
Beccaria,		2,205	72	19		2,296			209	7						2
Totals,		178,592	4,547	203		183,342				248						49
Rockhill Iron and Coal Co.																
Robertsdale Slope,	Huntingdon,	76,705	1,558	959		79,222			191	199		1	*			25
Woodvale Shaft,		96,435	6,823	606		103,864			215	224		2				34
Totals,		173,140	8,381	1,565		183,086				423		3				59
Grampian Coal Mining Co.																
Penn No. 4,	Centre,	52,884				52,884			249	69		1	4,350	200		7
Penn No. 5,		127,649				127,649			269	166			15,625			13
Totals,		180,533				180,533				235		1	19,975	200		20
Bulah Shaft Coal Co.																
Bulah Shaft No. 1,	Clearfield,	112,052	988			113,040			170	187			8,650	950		16
S. J. Mountz and Co.																
Viola,	Clearfield,	91,221	225	227		91,673			238	138			*			12
Whiteside No. 1,		20,737				20,737			226	33						4
Totals,		111,958	225	227		112,410				171						16
John Langdon																
Cambria No. 1,	Bedford,	29,244		164		29,408			217	49		1	2,950	50		6
Chevington No. 2,		17,405	415	127		17,947			218	47			1,900	369		7
Glendale No. 1,		30,516	534	294		31,344			229	55			5,950	470		8
Glendale No. 2,		7,448				7,448			234	9			3,900	75		1
Duval Slope,		7,317	578	81		7,976			263	11			850	240		3
Totals,		91,930	1,527	666		94,123				171		1	15,550	1,204		25

*No record kept.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Colonial Iron Co.																
Judith,	Bedford,	78,469	1,260	6,060	.....	85,789	.....	.....	208	173	....	....	10,400	100	.....	12
Clark Brothers Coal Mining Co.																
Falcon No. 1,	Clearfield,	46,914	94	76	.....	47,084	.....	.....	216	71	....	....	3,775	750	.....	7
Falcon No. 2,	Clearfield,	17,025	478	208	.....	17,711	.....	.....	148	34	....	....	1,425	100	.....	.....
Falcon No. 4,	Clearfield,	18,652	.....	30	.....	18,682	.....	.....	111	29	....	....	1,200	.....	.....	5
Totals,		82,591	572	314	.....	83,477	.....	.....	.....	134	....	....	6,400	850	.....	12
Joseph E. Thropp																
Kearney Slope,	Bedford,	394	3,304	371	34,176	38,245	22,222	170	127	177	....	1	19,575	105	.....	16
Kearney Barnett,	Bedford,	1,408	.....	.....	.....	1,408	.....	.....	41	9	....	....	1,025	.....	.....	1
Melrose Nos. 1, 2 and 3,	Huntingdon,	2,708	171	394	16,763	20,036	11,016	90	76	170	....	....	1,650	1,550	.....	22
Gordon,	Huntingdon,	21,610	430	.....	.....	22,040	.....	.....	70	130	....	....	1,625	780	.....	17
Totals,		26,120	3,905	765	50,939	81,729	33,238	260	.....	486	....	1	23,875	2,435	.....	56
Bulah Coal Co.																
Webster No. 4,	Clearfield,	79,384	367	707	.....	80,458	.....	.....	194	141	....	2	6,850	1,400	.....	22
Whitney and Kemmerer																
Whitney No. 1,	Clearfield,	66,837	3,889	.....	.....	70,726	.....	.....	218	88	....	....	5,225	50	.....	8
Betz Coal Mining Co.																
Betz No. 2,	Clearfield,	68,906	1,081	152	.....	70,139	.....	.....	238	106	....	....	13,100	.....	.....	13

W. A. Gould and Brother																
Midvale No. 1,	Clearfield,	24,807		100		24,907			226	41			1,250			10
Midvale No. 2,		4,073				4,073			175	8			250			3
Midvale No. 3,		15,291		125		15,416			190	29			1,250			5
Loraine,		6,405				6,405			204	8			250			3
Goss Run,		3,599				3,599			79	8						1
Henderson No. 5,		6,278	100			6,378			174	17			625			2
Totals,		60,453	100	225		60,778				111			3,625			24
Moshannon Coal Mining Co.																
Lenore Nos. 1 and 2,	Clearfield,	21,344				21,344			234	47			*			4
Moshannon No. 1,		5,556				5,556			210	19						1
Moshannon No. 4,		4,951				4,951			232	4						1
Moshannon No. 7,		2,749				2,749			212	3						1
Moshannon No. 9,		23,047				23,047			254	29						4
Totals,		57,647				57,647				102						11
Broad Top Coal and Mineral Co.																
Jacobs,	Huntingdon,	53,557	83	1,287		54,927			263	92			35,000	200		17
Centre Coal and Coke Co.																
Weston,	Centre,	51,501	100			51,601			247	67						10
Cambria Coal Mining Co.																
Leeland No. 1,	Clearfield,	22,027	148	277		22,452			115	60			2,870	175		7
Leeland No. 2,		558				558			55	4						2
Leeland No. 6,		3,230		41		3,271			155	7			550	50		2
Leeland No. 7,		6,331	688	71		7,090			115	31			4,000	250		
Leeland No. 8,		3,639				3,639			38	22			1,000	100		2
Leeland No. 9,		9,161		79		9,240			203	35			750	250		2
Leeland No. 10,		3,790				3,790			50	29			500	75		1
Totals,		48,736	836	468		50,040				188			9,670	900		16
Pemberton Coal Co.																
Pemberton,	Centre,	47,754				47,754			190	79			400			12
E. J. Walker and Co.																
Troy,	Clearfield,	15,000				15,000			200	11						2
Stanley,		30,000	150			30,150			207	55						3
Totals,		45,000	150			45,150				66						5

*No record kept.

TABLE 2.—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Atlantic Coal Mining Co.																
Cross Keys,	Clearfield,	40,088		40		40,128			198	82		1	*			9
E. Eichelberger and Co.																
Bacon No. 2,	Bedford,	27,298	200	10		27,508			109	67			25,000	25		14
Huntingdon Coal Co.																
Delaware No. 1,	Bedford,	26,613	450	200		27,263			116	60			10,000			4
Delaware No. 2,		†							15	17						1
Totals,		26,613	450	200		27,263				77			10,000			5
Standard Moshannon Coal Co.																
Standard No. 4,	Clearfield,	23,877		120		23,997			186	49			3,550	200		4
A. J. Black																
Black No. 2,	Huntingdon,	3,360				3,360			171	8			200	50		2
Black No. 3,		19,500		500		20,000			185	37			17,500	500		4
Totals,		22,860		500		23,360				45			17,700	550		6

*No record kept.
†Production included in No. 1 mine.

Rocky Ridge Coal and Mining Co.																
Wrays Hill,	Huntingdon,	15,500	50			15,550			141	43			5,625			4
Louise,		6,241	168	100		6,509			124	28						1
Totals,		21,741	218	100		22,059				71			5,625			5
Schipper Brothers Coal Mining Co.																
Lady Smith Nos. 1 and 2,	Bedford,	19,350				19,350			192	44			11,250			4
Lady Smith Nos. 3 and 4,		447				447			13	9						
Totals,		19,797				19,797				53			11,250			4
G. L. Whitehead Coal Co.																
Peerless No. 4,	Centre,	19,214	72			19,286			211	50			3,075	530		5
Commercial Coal Mining Co.																
Commercial No. 1,	Bedford,	18,054	28	233		18,315			218	42		1	12,000	500		12
Decatur Coal Mining Co.																
Decatur No. 11,	Clearfield,	17,998				17,998			130	53		1	3,525			2
Blyth Coal Co.																
Blyth Shaft,	Clearfield,	13,581	2,400			15,981			228	39			3,000	550		1
Madeira Hill Coal Mining Co.																
Elizabeth No. 1,	Clearfield,	15,366	600	2		15,968			80	75			1,875	450		8
Clearmont Coal Mining Co.																
Clearmont,	Clearfield,	14,03?	550	75		14,658			223	41			1,600			3
Irish Brothers Coal Co.																
Industry,	Clearfield,	10,359				10,359			143	14						5
Niagara,		2,593				2,593			65	3						1
Totals,		12,952				12,952				17						6
H. A. Munn Co.																
Benedict,	Huntingdon,	12,000		100		12,100			127	28			1,000	500		2
Franklin Coal Co., Limited																
Sterling No. 2,	Clearfield,	12,039				12,039			200	16			600			4
Lulu Coal Co.																
Schwin,	Clearfield,	10,800				10,800			265	16			1,250			4
Fernwood Coal Co.																
Mt. Vernon No. 10,	Clearfield,	9,900		45		9,945			199	21			2,000	280		2

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Brisbin Coal Mining Co.																
Mascot,	Clearfield,	8,632				8,632			181	11						2
Henrietta Coal Co.																
Henrietta No. 3,	Clearfield,	7,098	1,080			8,178			143	15						2
Thomas Blyth																
Alexander,	Clearfield,	7,673		31		7,704			270	9						1
E. J. D. Coxe																
Elizabeth No. 1,	Clearfield,	7,288	322			7,610			45	79			625	350		8
Highland Coal Mining Co.																
Highland No. 3,	Bedford,	3,880		8		3,888			44	24			1,700	25		3
Highland No. 4,	Bedford,	2,933				2,933			62	10			900			2
Totals,		6,813		8		6,821				34			2,600	25		5
Osceola Fire Brick Co.																
Burns No. 2,	Clearfield,	6,091		10		6,101			255	8						1
Mount Equity Coal and Coke Co.																
Mount Equity No. 1,	Bedford,	2,585	50	100		2,735			59	5			500	50		2
Mount Equity No. 2,	Bedford,	1,278				1,278			24	5			250	60		2
Mount Equity No. 3,	Bedford,	2,050				2,050			15	79			500	100		5
Totals,		5,913	50	100		6,063				89			1,250	210		9

Jacobs and Glazier Victoria,	Huntingdon,	5,929				5,929			214	11			2,500			2
W. R. Gallagher and Brothers Black Oak,	Clearfield,	5,623		106		5,729			85	13			1,875			1
S. O. Walker Big Run,	Clearfield,	5,516		50		5,566			119	24			500			4
Leo J. Tierney Bartle,	Bedford,	5,252		20		5,272			100	25			500	50		2
Thomas McGlynn Yorkshire No. 2,	Clearfield,	4,363	140	220		4,723			197	13			1,970	375		3
Banian Run Coal Co. Standard No. 7,	Clearfield,	4,025				4,025			240	8			1,500			1
Coal Run Coal Co. Coal Run No. 1,	Clearfield,	518				518			27	9			50			1
Coal Run No. 2,		3,072	180			3,252			100	14			250			2
Totals,		3,590	180			3,770				23			300			3
John H. Wilkinson Shoff Nos. 1 and 2,	Clearfield,	3,246				3,246			105	5		2				1
Vogal and McKenzie Birdseye,	Clearfield,	3,106				3,106			199	10				50		1
John Quinn McCartney No. 3,	Clearfield,	2,981				2,981			90	10						3
E. C. Brown Kenmar No. 2,	Bedford,	529		103		632			114	7						2
Kenmar No. 3,		1,845		164		2,009			114	7						2
Totals,		2,374		267		2,641				14						4
White-Dugan Coal Co. Celtic,	Clearfield,	1,478				1,478			53	12			450			1
Clearfield Collieries Co. Reliance,	Clearfield,	1,214		4		1,218			23	26		1	325			4
A. Stolz Katherine,	Clearfield,	800				800			50	16			200	10		2
Grand totals,		2,922,400	62,335	17,835	50,939	3,053,509	33,238	260		6,114	2	28	360,275	21,702		736

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Berwind-White Coal Mining Co.,	Clearfield,			14	1,855	1,855			7	16	1,415	12	5,400		5	
Corona Coal and Coke Co.,	Clearfield,			5	440	440						14				1
Carbon Coal and Coke Co.,	Bedford and Huntingdon			6	400	400			1	2	225	1	250	200	1	
H. B. Swoope and Co.,	Clearfield,			3	400	400						5				2
Rockhill Iron and Coal Co.,	Huntingdon,			5	1,012	1,012				5	635	6	4,400			2
Bulah Shaft Coal Co.,	Clearfield,			3	200	200				2	100	1	1,000	500		
S. J. Mountz and Co.,	Clearfield,			1	120	120				1	120					
John Langdon,	Bedford,			4	280	280				3	150	4	1,139	950		
Colonial Iron Co.,	Bedford,			2	160	160	1			1	120	2	500	250		1
Clark Brothers Coal Mining Co.,	Clearfield,			2	150	150			1	2	95	1	60	20	1	
Joseph E. Thropp,	Bedford and Huntingdon			6	550	550			1	5	680	4	1,000	700	1	1
Bulah Coal Co.,	Clearfield,			2	100	100				2	80	1	410	250		
Whitney and Kemmerer,	Clearfield,			3	300	300				1	100	2	700	500		1
Betz Coal Mining Co.,	Clearfield,	2	180			180										1
W. A. Gould and Brother,	Clearfield,			1	125	125				1	180	1	225			1
Broad Top Coal and Mineral Co.,	Huntingdon,			2	60	60				2	42	1	100	50		
Centre Coal and Coke Co.,	Centre,			1	50	50				1	35					
Cambria Coal Mining Co.,	Clearfield,			3	160	160			2	4	435				2	
E. J. Walker and Co.,	Clearfield,			1	70	70				1	25					
Atlantic Coal Mining Co.,	Clearfield,						1			1	35					
E. Eichelberger and Co.,	Bedford,			1	10	10				1	10					
Huntingdon Coal Co.,	Bedford,			4	320	320				4	320	1	570	380	1	
Rocky Ridge Coal and Mining Co.,	Huntingdon,	1	35	1	100	135				2	120	2	100	70		

G. L. Whitehead Coal Co.,	Centre,	1	25			25					1				
Commercial Coal Mining Co.,	Bedford,			1	24	24			1	24					
Blyth Coal Co.,	Clearfield,			2	250	250					2	1,250	500		1
Madeira Hill Coal Mining Co.,	Clearfield,			2	300	300			2	150	2	400	250		1
Clearmont Coal Mining Co.,	Clearfield,			1	75	75			1	50	1	250	200		
Brisbin Coal Mining Co.,	Clearfield,	1	70			70					1				
Henrietta Coal Co.,	Clearfield,	1	50	1	125	175					2				
E. J. D. Coxe,	Clearfield,			2	250	250			2	275	1	250	200		1
Mount Equity Coal and Coke Co.,	Bedford,			1	80	80			2	50					1
Thomas McGlynn,	Clearfield,			1	80	80			1	35	1	146	47		
Coal Run Coal Co.,	Clearfield,			1	20	20					1	18			
E. C. Brown,	Bedford,			2	140	140			1	140					
Totals,		6	360	84	8,206	8,566	2	12	67	5,646	70	18,168	5,067	11	14

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Berwind-White Coal Mining Co.,	Clearfield,	6	----	----	252	5	191	5	22	2	1	31	515	1	----	9	12	----	6	36	64	579
Corona Coal and Coke Co.,	Clearfield,	5	----	----	345	4	48	4	21	7	9	------	443	1	----	5	3	----	8	16	33	476
Carbon Coal and Coke Co.,	Bedford, Huntingdon	6	3	----	393	------	------	------	41	7	11	------	461	1	1	7	4	----	2	18	33	494
H. B. Swoope and Co.,	Clearfield,	4	----	----	125	6	70	6	17	2	7	------	237	----	----	1	2	----	----	8	11	248
Rockhill Iron and Coal Co.,	Huntingdon,	2	2	----	325	------	------	------	29	6	24	------	388	1	----	4	8	----	2	20	35	423
Grampian Coal Mining Co.,	Centre,	2	----	----	210	------	------	------	10	4	2	1	229	----	----	1	----	----	----	5	6	235
Bulah Shaft Coal Co.,	Clearfield,	1	----	----	157	------	------	------	7	2	6	------	173	1	----	1	3	----	1	8	14	187
S. J. Mountz and Co.,	Clearfield,	2	----	----	150	------	------	------	7	------	5	------	164	----	2	1	1	----	1	2	7	171
John Langdon,	Bedford,	3	1	----	119	------	------	------	15	2	15	1	156	1	----	4	3	----	1	6	15	171
Colonial Iron Co.,	Bedford,	1	----	----	132	------	------	------	12	4	5	------	154	1	----	2	3	----	1	12	19	173
Clark Brothers Coal Mining Co.,	Clearfield,	3	----	----	105	1	4	1	7	2	3	------	126	----	----	1	1	----	1	5	8	134
Joseph E. Thropp,	Bedford, Huntingdon	4	----	----	264	6	9	6	28	7	13	15	352	1	2	7	8	84	3	29	134	486
Bulah Coal Co.,	Clearfield,	2	----	----	115	------	------	------	5	3	4	------	129	1	----	3	1	----	1	6	12	141
Whitney and Kemmerer,	Clearfield,	1	----	----	73	------	------	------	4	1	2	------	81	----	----	1	3	----	----	3	7	88
Betz Coal Mining Co.,	Clearfield,	1	1	----	18	5	54	5	4	3	3	------	94	1	----	1	2	----	2	6	12	106
W. A. Gould and Brother,	Clearfield,	3	----	----	97	------	------	------	11	------	------	------	111	----	----	----	----	----	----	------	------	111
Moshannon Coal Mining Co.,	Clearfield,	3	----	----	87	------	------	------	7	------	2	------	99	----	----	----	----	----	----	3	3	102
Broad Top Coal and Mineral Co.,	Huntingdon,	1	1	----	60	------	------	------	8	6	3	------	79	1	1	2	2	----	1	6	13	92
Centre Coal and Coke Co.,	Centre,	1	----	----	60	------	------	------	3	------	1	------	65	----	----	----	----	----	----	2	2	67
Cambria Coal Mining Co.,	Clearfield,	5	----	----	150	------	------	------	9	2	15	------	181	----	1	3	2	----	1	------	7	188
Pemberton Coal Co.,	Centre,	1	----	----	64	------	------	------	5	------	1	------	71	1	----	1	----	----	2	4	8	79
E. J. Walker and Co.,	Clearfield,	1	----	----	48	------	------	------	3	------	------	7	59	----	1	----	1	----	1	4	7	66
Atlantic Coal Mining Co.,	Clearfield,	1	----	----	70	------	------	------	4	------	------	------	75	1	----	1	1	----	1	3	7	82

E. Eichelberger and Co.,	Bedford,	1	1	51				7	1	1		62			1	1		1	2	5	67
Huntingdon Coal Co.,	Bedford,	2		61				5			1	69			2	3		1	2	8	77
Standard Moshannon Coal Co.,	Clearfield,	1		43				2		1		47	1					1		2	49
A. J. Black,	Huntingdon,	1		39				3				43	1					1		2	45
Rocky Ridge Coal and Mining Co.,	Huntingdon,	2		59				3				64	1			2		1	3	7	71
Schipper Brothers Coal Mining Co.,	Bedford,	1		41				5		1		48	1		1			1	2	5	53
G. L. Whitehead Coal Co.,	Centre,	1		40				2		1		44	1		1	1		1	2	6	50
Commercial Coal Mining Co.,	Bedford,	1		32				4		1		38	1		1			1	1	4	42
Decatur Coal Mining Co.,	Clearfield,	1		50				2				53									53
Blyth Coal Co.,	Clearfield,	1		31	1		1	1				35			1	3				4	39
Madeira Hill Coal Mining Co.,	Clearfield,	1		55	1	2	1	3		5		68	1			3		1	2	7	75
Clearmont Coal Mining Co.,	Clearfield,	1		29				2		2	2	36	1			1		1	2	5	41
Irish Brothers Coal Co.,	Clearfield,	1		14				2				17									17
H. A. Munn Co.,	Huntingdon,	1		20				2	1	2		26	1		1					2	28
Franklin Coal Co., Limited,	Clearfield,	1		13				1				15		1						1	16
Lulu Coal Co.,	Clearfield,	1		12				2		1		16									16
Fernwood Coal Co.,	Clearfield,	1		17				1		1		20	1							1	21
Brisbin Coal Mining Co.,	Clearfield,			8				2				10						1		1	11
Henrietta Coal Co.,	Clearfield,	1		9				1				11	1			2		1		4	15
Thomas Blyth,	Clearfield,			8				1				9									9
E. J. D. Coxe,	Clearfield,	1		53	3	7	3	5		1		73			1	3		1	1	6	79
Highland Coal Mining Co.,	Bedford,	1	1	23				3		1		29	1		1			1	2	5	34
Osceola Fire Brick Co.,	Clearfield,	1		7								8									8
Mount Equity Coal and Coke Co.,	Bedford,	1	1	66				7	3	2		80	1		1	1			6	9	89
Jacobs and Glazier,	Huntingdon,			7				1				8	1						2	3	11
W. R. Gallagher and Brothers,	Clearfield,	1		10				1				12	1							1	13
S. O. Walker,	Clearfield,	1		20				2				23	1							1	24
Leo J. Tierney,	Bedford,	1		20				2		1		24	1							1	25
Thomas McGlynn,	Clearfield,	1		9				1				11				1			1	2	13
Banian Run Coal Co.,	Clearfield,			7				1				8									8
Coal Run Coal Co.,	Clearfield,	1		19				2				22							1	1	23
John H. Wilkinson,	Clearfield,			5								5									5
Vogal and McKenzie,	Clearfield,		1	5				1		1		8	1					1		2	10
John Quinn,	Clearfield,			8				1				9	1							1	10
E. C. Brown,	Bedford,	2		10				2				14									14
White-Dugan Coal Co.,	Clearfield,	1		9				1				11	1							1	12
Clearfield Collieries Co.,	Clearfield,	1		22				2				25	1							1	26
A. Stolz,	Clearfield,	1		10				2				13	1	1				1		3	16
Totals,		93	12	4,361	32	385	32	364	65	154	58	5,556	35	10	66	81	84	51	231	558	6,114

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Berwind-White Coal Mining Co.,	Clearfield,	10	13	21	16	18	13	15	13	19	23	24	25	210
Corona Coal and Coke Co.,	Clearfield,	20	14	18	14	12	18	14	16	17	19	20	21	203
Carbon Coal and Coke Co.,	Huntingdon, Bedford,	15	12	14	------	6	15	11	16	19	17	19	15	159
H. B. Swoope and Co.,	Clearfield,	19	15	18	17	17	20	17	20	20	22	22	22	229
Rockhill Iron and Coal Co.,	Huntingdon,	19	20	20	------	5	20	17	19	18	17	23	25	203
Grampian Coal Mining Co.,	Centre,	20	19	23	21	21	22	24	24	16	22	23	24	259
Bulah Shaft Coal Co.,	Clearfield,	17	15	14	9	6	11	13	17	19	12	19	18	170
S. J. Mountz and Co.,	Clearfield,	24	21	19	15	13	25	25	18	20	18	14	22	234
John Langdon,	Bedford,	14	15	17	16	23	20	15	21	21	23	23	24	232
Colonial Iron Co.,	Bedford,	25	24	9	------	------	16	22	22	22	22	22	24	208
Clark Brothers Coal Mining Co.,	Clearfield,	13	14	15	11	6	6	6	9	18	18	19	23	159
Joseph E. Thropp,	Bedford, Huntingdon,	17	17	22	5	1	------	------	------	------	5	6	6	79
Bulah Coal Co.,	Clearfield,	20	17	17	13	10	13	17	17	20	16	17	17	194
Whitney and Kemmerer,	Clearfield,	20	23	18	15	17	6	18	25	23	22	8	23	218
Betz Coal Mining Co.,	Clearfield,	18	19	26	17	23	21	21	13	15	17	13	25	238
W. A. Gould and Brother,	Clearfield,	17	15	16	17	16	15	14	10	12	13	15	15	175
Moshannon Coal Mining Co.,	Clearfield,	16	12	20	20	18	19	19	17	22	24	19	22	228
Broad Top Coal and Mineral Co.,	Huntingdon,	24	18	24	------	25	26	24	25	23	26	26	22	263
Centre Coal and Coke Co.,	Centre,	22	20	19	20	25	18	16	22	21	19	21	24	247
Pemberton Coal Co.,	Centre,	18	16	16	6	13	13	14	18	20	15	19	22	190
Cambria Coal Mining Co.,	Clearfield,	12	12	15	9	6	10	9	9	6	6	3	7	104
E. J. Walker and Co.,	Clearfield,	21	21	20	12	16	15	8	16	17	18	19	21	204
Atlantic Coal Mining Co.,	Clearfield,	16	18	18	16	17	13	22	17	10	14	19	18	198
E. Eichelberger and Co.,	Bedford,	7	7	12	------	------	------	6	10	12	13	19	23	109
Huntingdon Coal Co.,	Bedford,	13	6	6	------	------	------	4	11	6	6	5	9	66
Standard Moshannon Coal Co.,	Clearfield,	13	11	17	12	10	16	19	14	16	19	18	21	186
A. J. Black,	Huntingdon,	15	12	13	------	10	16	8	16	19	22	25	22	178
Rocky Ridge Coal and Mining Co.,	Huntingdon,	23	12	14	------	------	------	------	5	15	20	22	22	133
Schipper Brothers Coal Mining Co.,	Bedford,	18	8	13	3	------	10	9	5	9	8	9	11	103
G. L. Whitehead Coal Co.,	Centre,	23	15	23	15	20	18	25	15	20	14	8	15	211

Commercial Coal Mining Co.,	Bedford,	5	4	5	12	10	25	27	27	25	25	26	27	218
Decatur Coal Mining Co.,	Clearfield,	------	------	------	------	------	19	16	15	12	18	24	26	130
Blyth Coal Co.,	Clearfield,	20	18	17	19	17	19	18	16	18	20	22	24	228
Madeira Hill Coal Mining Co.,	Clearfield,	------	------	------	------	------	------	------	3	18	16	18	25	80
Clearmont Coal Mining Co.,	Clearfield,	25	20	23	21	16	4	10	20	19	20	25	20	223
Irish Brothers Coal Co.,	Clearfield,	10	11	11	8	11	12	10	6	6	7	6	6	104
H. A. Munn Co.,	Huntingdon,	7	7	6	------	------	------	------	17	20	24	22	24	127
Franklin Coal Co., Limited,	Clearfield,	17	17	15	19	17	17	15	19	17	17	15	15	200
Lulu Coal Co.,	Clearfield,	23	20	22	23	24	22	20	23	19	24	23	22	265
Fernwood Coal Co.,	Clearfield,	------	------	------	------	22	26	25	25	25	24	26	26	199
Brisbin Coal Mining Co.,	Clearfield,	18	15	19	15	17	16	13	14	13	14	12	15	181
Henrietta Coal Co.,	Clearfield,	11	23	22	20	2	------	------	11	17	14	3	20	143
Thomas Blyth,	Clearfield,	22	20	21	22	21	25	21	23	23	22	25	25	270
E. J. D. Coxe,	Clearfield,	17	22	6	------	------	------	------	------	------	------	------	------	45
Highland Coal Mining Co.,	Bedford,	2	5	4	------	------	------	------	------	------	3	17	22	53
Osceola Fire Brick Co.,	Clearfield,	18	21	24	16	11	17	22	26	24	26	24	26	255
Mount Equity Coal and Coke Co.,	Bedford,	5	3	7	------	------	------	------	------	1	5	6	6	33
Jacobs and Glazier,	Huntingdon,	22	16	24	------	20	22	24	20	20	12	19	15	214
W. R. Gallagher and Brothers,	Clearfield,	8	12	5	7	6	5	6	4	5	3	4	20	85
S. O. Walker,	Clearfield,	18	5	------	2	14	------	------	17	8	17	17	21	119
Leo J. Tierney,	Bedford,	10	9	8	15	12	13	8	10	15	------	------	------	100
Thomas McGlynn,	Clearfield,	------	10	24	23	18	20	12	15	14	18	20	23	197
Banian Run Coal Co.,	Clearfield,	20	20	20	16	24	18	22	19	19	22	19	21	240
Coal Run Coal Co.,	Clearfield,	------	------	------	------	2	11	5	9	7	11	9	10	64
John H. Wilkinson,	Clearfield,	10	15	15	------	------	------	------	------	20	10	20	15	105
Vogal and McKenzie,	Clearfield,	12	20	18	19	17	18	15	10	18	17	17	18	199
John Quinn,	Clearfield,	20	19	5	4	------	------	------	------	------	5	18	19	90
E. C. Brown,	Bedford,	4	5	12	------	10	17	4	3	16	5	18	20	114
White-Dugan Coal Co.,	Clearfield,	------	------	------	------	------	------	------	4	12	10	12	15	53
Clearfield Collieries Co.,	Clearfield,	------	------	------	------	------	------	------	------	------	------	------	23	23
A. Stoltz,	Clearfield,	------	------	------	------	------	------	------	------	------	------	25	25	50

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
March 17	Andrew Losh,	Polish,	Miner,	35	M.	1	----	Bucher,	Clearfield,	Fatally injured by fall of rock. The place was well timbered but the rock fell out between slips about three feet from face of room and one foot from rib.
Oct. 27	Miles O'Rourke,	Irish,	Miner,	62	M.	1	2	Eureka No. 16,	Clearfield,	Killed instantly by fall of coal at the face of his room. He was undermining the coal without the use of sprags to support it.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 14	Earl Himes,	American,	Trip rider,	22	S.	Kearney Slope,	Bedford,	Leg broken between mine car and engine house. Outside.
18	Joseph Lehawk,	Polish,	Miner,	28	S.	Commercial No. 1,	Bedford,	Pelvis injured by fall of coal at face of room.
21	Paul Henrich,	Slavonian,	Miner,	50	M.	Shoff No. 1,	Clearfield,	Collar bone broken by fall of coal at face of room.
26	George West,	American,	Miner,	20	S.	Cross Keys,	Clearfield,	Leg broken between mine cars. Outside.
Feb. 11	James Grafton,	American,	Cutter and Loader,	33	M.	Eureka No. 28,	Clearfield,	Left foot injured by fall of coal at face of room.
16	Newton Cornelius,	American,	Driver,	24	M.	Woodvale Shaft,	Huntingdon,	Head injured between top of loaded mine car and the roof on one of the main haulage roads.
25	Joseph Capproni,	Italian,	Miner,	38	M.	Eureka No. 28,	Clearfield,	Foot injured by fall of rock at face of room.
March 13	Louis Lubo,	French,	Miner,	30	M.	Shoff No. 2,	Clearfield,	Foot injured by fall of rock in pillar work.
15	Charles Reily,	Irish,	Driver,	35	S.	Penn No. 4,	Clearfield,	Jaw bone and leg injured by being kicked by a mule and then struck by mine car on the main haulage road.
April 3	Joseph Bosick,	Slavonian,	Miner,	21	S.	Corona,	Clearfield,	Face lacerated and eyes badly injured by a premature dynamite blast at face of entry.
5	Herman Brandt,	German,	Miner,	18	S.	Eureka No. 7,	Clearfield,	Collar bone broken by fall of coal in pillar work.
June 8	James Gatti,	Italian,	Miner,	32	M.	Eureka No. 28,	Clearfield,	Toes injured by fall of rock near face of his room.
17	Andrew Bailer, Sr.,	Slavonian,	Miner,	52	M.	Eureka No. 7,	Clearfield,	Arm injured by fall of rock at the face of his room.
July 20	Mike Simosky,	Russian,	Miner,	35	M.	Decatur No. 11,	Clearfield,	Leg broken and back injured by falling between moving mine cars on the main entry.
26	Edward Galvin,	Irish,	Miner,	46	M.	Eureka No. 7,	Clearfield,	Leg broken between mine cars on one of the room entries.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
July 28	Thomas Phillips,	Welsh,	Driver,	18	S.	Woodvale Shaft,	Huntingdon,	Spine injured while riding between mine cars on one of the room entries.
29	Wasco Cormack,	Slavonian,	Miner,	42	S.	Eureka No. 28,	Clearfield,	Right shoulder dislocated and arm fractured by fall of coal at face of room.
Aug. 11	George Kascak,	Slavonian,	Miner,	30	M.	Eureka No. 7,	Clearfield,	Wrist partially dislocated by being caught between moving cage and shaft bunting while being lowered in the shaft.
17	Patrick Brannigan,	Irish,	Driver,	42	M.	Ocean No. 4,	Huntingdon,	Leg badly crushed by being run over by a loaded mine car on the main haulage road. Foot had to be amputated.
Sept. 1	Joseph W. Horton,	American,	Miner,	50	S.	Cambria No. 1,	Bedford,	Left leg broken by fall of coal at face of room.
10	Daniel Connors,	American,	Driver,	28	M.	White Oak No. 1,	Clearfield,	Fingers crushed by being run over by a loaded mine car on main haulage road.
17	Edward Young,	American,	Trip rider,	30	S.	Robertsdale Slope,	Huntingdon,	Arm badly crushed by being caught between the top of a loaded mine car and the roof on main haulage road. Arm had to be amputated.
Nov. 2	Joseph Novisky,	Slavonian,	Miner,	15	S.	Webster No. 4,	Clearfield,	Burned with powder. He was making a cartridge with his lamp on his head and a spark fell from the lamp into the powder can and ignited the powder, at face of main entry.
Dec. 4	Joseph Spumah,	Italian,	Miner,	35	M.	Ocean No. 3,	Huntingdon,	Collar bone broken by fall of coal at face of room.
6	William B. Robinson,	American,	Miner,	45	M.	Reliance,	Clearfield,	Foot cut and bruised by fall of slate at face of room.
7	William Skipper,	American,	Driver,	20	S.	Ocean No. 2,	Huntingdon,	Leg fractured and flesh wound by mine cars on main haulage road.
17	Peter Zanborskie,	Slavonian,	Miner,	20	S.	Webster No. 4,	Clearfield,	Back and ankle injured by fall of roof at face of room.
20	William Lavelle,	American,	Driver,	36	M	Carbon No. 1,	Huntingdon,	Both legs and two ribs broken by fall of rock on one of the side entries while he was preparing to timber it.

CONDITION OF MINES

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 7.—A large volume of air is produced by the fan, but on account of leakage the greater portion of it is lost before it reaches the working faces. However, the mine was in a sanitary condition on my last visit. Drainage had also been improved, but was still defective in some sections.

Eureka No. 16.—Ventilation was weak at working faces, but atmosphere of mine was clear and healthy when last inspected. Drainage defective in some sections.

Eureka No. 22.—Ventilation and drainage in fair condition.

Eureka No. 27.—General condition of mine was good.

Eureka No. 28.—Ventilation was very well conducted around the working faces, and drainage was very satisfactory when last inspected.

CORONA COAL AND COKE COMPANY

Bucher.—Ventilation very fair, drainage good.

Corona.—Ventilation good in both drifts; drainage not satisfactory in the old drift.

Davis.—Ventilation fair, drainage good.

White Oak.—Ventilation was weak at working faces on right side entries and drainage defective on part of the haulage roads. Traveling way has been improved.

Hegarty.—Idle greater portion of the year.

Shoff No. 3.—Ventilation and drainage were fair when last inspected.

Royal.—Idle the entire year.

CARBON COAL AND COKE COMPANY

Cambria No. 3, Ocean Nos. 2 and 4 were in very satisfactory condition when last inspected. The ventilation in Ocean No. 3 and Carbon Nos. 1 and 4, was very weak at the working faces. Drainage good in all these mines.

H. B. SWOOPE AND COMPANY

Sylvania.—The furnace of this mine is not adequate to furnish ventilation for more than seventy-five persons, which limit has been fixed until the ventilating power is increased. Drainage was very fair.

Morgan Run.—Ventilation was very weak at working faces when last inspected. Drainage was good.

No. 18 Colliery.—Ventilation and drainage very defective in old drift. Conditions very fair in the new drift.

King.—Ventilation fair; drainage good.

Beccaria.—Not under the law.

ROCKHILL IRON AND COAL COMPANY

Robertsdale Slope.—New airways have been driven and ventilation very much improved. Drainage good.

Woodvale Shaft.—General condition very fair. Ventilation well conducted around the workings.

GRAMPIAN COAL MINING COMPANY

Penn No. 4.—Ventilation was not satisfactory when last inspected, and improvement was requested. Drainage was fair.

Penn No. 5.—Ventilation very fair and drainage defective in some portions of the mine.

BULAH SHAFT COAL COMPANY

Bulah Shaft No. 1.—Ventilation and general condition very good.

S. J. MOUNTZ AND COMPANY

Viola.—Ventilation was very well conducted around the working faces. Drainage good.

Whiteside No. 1.—Ventilation and drainage fair.

JOHN LANGDON

Cambria No. 1.—Was almost exhausted when last inspected.

Chevington No. 2.—Ventilation and drainage good when inspected.

Glendale Nos. 1 and 2.—General condition fair.

Duval Slope.—Ventilation very weak at working faces, and drainage only fair.

COLONIAL IRON COMPANY

Judith.—General condition was very satisfactory.

CLARK BROTHERS COAL MINING COMPANY

Falcon No. 1.—Ventilation good; drainage defective.

Falcon No. 2.—General condition good.

Falcon No. 4.—Ventilation and drainage was very satisfactory.

JOSEPH E. THROPP

Kearney Slope.—Ventilation was very weak at working faces when mine was inspected. Drainage was good.

Kearney Barnett, Melrose Nos. 1, 2 and 3 and Gordon mines were idle the greater portion of the year.

Kearney Plane.—Idle the entire year.

BULAH COAL COMPANY

Webster No. 4.—General condition very satisfactory except in the old drift, where the ventilation was very weak when last inspected.

WHITNEY AND KEMMERER

Whitney No. 1.—Ventilation and drainage good. Shelter holes have been provided on rope haulage road.

BETZ COAL MINING COMPANY

Betz No. 2.—Ventilation has been improved by splitting the air current. Drainage good.

W. A. GOULD AND BROTHER

Midvale No. 1.—General condition fair.

Midvale No. 2.—Not under the law.

Midvale No. 3.—Ventilation weak; drainage good.

Loraine, Goss Run and Henderson No. 5, were not under the law during the greater portion of the year.

MOSHANNON COAL MINING COMPANY

Lenore Nos. 1 and 2.—In fair condition.

Moshannon No. 1.—Ventilation fair; drainage good.

Moshannon No. 9.—Ventilation fair. Drainage was very poor.

Moshannon No. 4 and 7.—Not under the law.

BROAD TOP COAL AND MINERAL COMPANY

Jacobs.—General condition was good.

CENTRE COAL AND COKE COMPANY

Weston.—Ventilation and drainage were very satisfactory.

CAMBRIA COAL MINING COMPANY

Leeland No. 1.—Ventilation very fair, drainage good.

Leeland Nos. 2 and 6.—Not under the law.

Leeland No. 7.—Ventilation and drainage were very satisfactory when inspected.

Leeland Nos. 8 and 10.—Idle the greater portion of the year.

Leeland No. 9.—Ventilation was very weak when last inspected, on account of defective stoppings. Drainage was good.

PEMBERTON COAL COMPANY

Pemberton.—Ventilation weak but healthy. Drainage good.

E. J. WALKER AND COMPANY

Troy.—Not under the law.

Stanley.—Ventilation weak on acount of the furnace being entirely too small. The company has promised to erect a fan. Drainage was good.

ATLANTIC COAL MINING COMPANY

Cross Keys.—The ventilation is good in the lower or Moshannon seam, but is very weak at face of workings in the upper seam on account of small airways being provided in the beginning. Drainage was good.

E. EICHELBERGER AND COMPANY

Bacon No. 2.—The ventilation was very much improved by the erection of a fan. Drainage only fair.

HUNTINGDON COAL COMPANY

Delaware No. 1.—Ventilation and drainage satisfactory.

Delaware No. 2.—Worked only fifteen days during the year.

STANDARD MOSHANNON COAL COMPANY

Standard No. 4.—Ventilation good, drainage very fair.

A. J. BLACK

Black No. 3.—Ventilation and general condition satisfactory.
Black No. 2.—Not under the law.

ROCKY RIDGE COAL AND MINING COMPANY

Wrays Hill.—Ventilation and drainage fair.
Louise.—Idle until the latter part of the year. No inspection made.

SCHIPPER BROTHERS COAL MINING COMPANY

Lady Smith Nos. 1 and 2.—Ventilation and drainage satisfactory.
Lady Smith Nos. 3 and 4, (Formerly known as Illinois)—Not under the law.

G. L. WHITEHEAD COAL COMPANY

Peerless No. 4.—Ventilation very weak at working faces. Idle a great deal during the year.

COMMERCIAL COAL MINING COMPANY

Commercial No. 1.—Ventilation and general condition satisfactory.

DECATUR COAL MINING COMPANY

Decatur No. 11.—Ventilation very fair; drainage good. The traveling-way needs some improvements, which I have requested to be made.

BLYTH COAL COMPANY

Blyth Shaft.—Ventilation and general condition very satisfactory for the number of persons employed.

MADEIRA HILL COAL MINING COMPANY

Elizabeth No. 1.—Ventilation very fair; drainage and general condition good.

CLEARMONT COAL MINING COMPANY

Clearmont.—Ventilation and drainage fair.

IRISH BROTHERS COAL COMPANY

Industry.—General condition fair.
Niagara.—Not under the law.

H. A. MUNN COMPANY

Benedict.—Ventilation was very weak when inspected and sufficient airways were not provided. Drainage fair.

FRANKLIN COAL COMPANY, LIMITED

Sterling No. 2.—No inspection made. The mine was idle when I was in that vicinity.

LULU COAL COMPANY

Schwim.—Ventilation and drainage very satisfactory.

FERNWOOD COAL COMPANY

Mt. Vernon No. 10.—Ventilation and general condition very fair.

BRISBIN COAL MINING COMPANY

Mascot.—Not under the law the greater portion of the year.

HENRIETTA COAL COMPANY

Henrietta No. 2.—Idle the entire year.
Henrietta No. 3.—Not under the law until latter part of year. No inspection made.

THOMAS BLYTH

Alexander.—Not under the law.

E. J. D. COXE

Elizabeth No. 1.—Ventilation fair; drainage good.

HIGHLAND COAL MINING COMPANY

Highland Nos. 3 and 4.—Ventilation very weak and not satisfactory; drainage fair.

OSCEOLA FIRE BRICK COMPANY

Burns No. 2.—Ventilation and drainage fair.

MOUNT EQUITY COAL AND COKE COMPANY

Mount Equity Nos. 1, 2 and 3.—Idle greater portion of the year.

JACOBS AND GLAZIER

Victoria.—Not under the law.

W. R. GALLAGHER AND BROTHERS

Black Oak.—Ventilation and general condition good.

S. O. WALKER

Big Run.—Has been idle or employing less than ten persons a great deal of the time.

LEO J. TIERNEY

Bartle.—Idle the latter part of the year.
Miller.—Idle the entire year.

THOMAS McGLYNN

Yorkshire No. 2.—Was not under the law until latter part of the year. No inspection made.

BANIAN RUN COAL COMPANY

Standard No. 7.—Not under the law.

COAL RUN COAL COMPANY

Coal Run No. 1.—Not under the law.
Coal Run No. 2.—Not under the law until the latter part of the year. No inspection made.

JOHN H. WILKINSON

Shoff Nos. 1 and 2.—Not under the law.

VOGAL AND McKENZIE

Birdseye.——Not under the law.

JOHN QUINN

McCartney No. 3.—Not under the law.

E. C. BROWN

Kenmar Nos. 2 and 3.—Not under the law.

WHITE-DUGAN COAL COMPANY

Celtic.—Ventilation and drainage fair.

CLEARFIELD COLLIERIES COMPANY

Reliance.—Ventilation fair; drainage good.

A. STOLZ

Katherine.—Ventilation very weak at face of workings. Drainage fair.

IMPROVEMENTS

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 28.—A shaft 7 x 7 feet and 65 feet deep, was sunk during the year for an outlet to part of the mine ventilation, and a stairway built in one side of it so that men working in this section can use it as a means of ingress or egress, and thus shorten the distance of underground travel to and from their working places.

CORONA COAL AND COKE COMPANY

Shoff No. 3.—A round air shaft, 7 feet in diameter and 96 feet deep, was sunk during the year and a double arch furnace built at the foot of it with 60 square feet of grate bar surface.

ROCKHILL IRON AND COAL COMPANY

Robertsdale Slope.—New airways of large areas were driven in sections of the mine where the ventilation was defective. The main rope haulage was extended several hundred feet.

BROAD TOP COAL AND MINERAL COMPANY

Jacobs.—Rope haulage was established in the dip working and a steam engine has been substituted for a gasoline engine to drive the fan.

E. EICHELBERGER AND COMPANY

Bacon No. 2.—A 7 foot Stine fan was erected to replace the furnace which had been very unsatisfactory.

SCHIPPER BROTHERS COAL MINING COMPANY

Lady Smith Nos. 1 and 2.—A 5 foot Clark fan, driven by a gasoline engine, was erected the latter part of the year.

BLYTH COAL COMPANY

Blyth Shaft.—A second opening shaft, 9 x 14 feet and 180 feet deep, was completed and equipped with stairs in accordance with the requirements of the mining law.

HENRIETTA COAL COMPANY

Henrietta No. 3.—An air shaft, 10 x 12 feet and 41 feet deep, was sunk and a 16-foot Brazil fan erected.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in Assembly Hall, First National Bank Building, Tyrone, April 6, 7, 8 and 9.

The Board of Examiners was composed of Nicholas Evans, Mine Inspector; A. E. Bachert, Superintendent; and Thomas B. Gallagher, Mine Foreman.

There were thirty-one applicants examined for certificates as Mine Foremen. The following persons passed a satisfactory examination and were granted certificates:

Second Grade

John Gallagher, Henry V. Bowser, Thomas Lobb, Samuel S. Lamborn, J. H. Miller and J. Foster Bolinger.

NINETEENTH DISTRICT

WESTMORELAND AND ALLEGHENY COUNTIES

Braddock, Pa., February 26, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report of the Nineteenth Bituminous District for the year ending December 31, 1909.

I was transferred to this District July 1, 1909, from the Seventeenth District.

The report contains the usual statistical tables, a statement of the most important improvements in and about the mines, and a brief description of the accidents,

The mines, with a few exceptions, are in good condition.

Respectfully submitted,

CHARLES P. McGREGOR,
Inspector.

46—23—1909

SUMMARY OF STATISTICS

Number of mines,	30
Number of mines in operation,	30
Number of tons of coal shipped to market,	7,683,211
Number of tons used at mines for steam and heat,	152,169
Number of tons sold to local trade and used by employes,	51,850
Number of tons used in the manufacture of coke,	32,975
Number of tons of coal produced,	7,920,205
Number of tons of coke produced,	27,120
Number of coke ovens,	85
Number of coke ovens in operation,	85
Number of tons of coal produced by pick mining,	4,061,847
Number of tons produced by compressed air machines,	1,722,279
Number of tons produced by electrical machines,	2,136,079
Number of persons employed inside of mines,	7,405
Number of persons employed outside, including coke workers,	1,139
Number of persons employed at manufacture of coke,	26
Number of fatal accidents inside of mines,	24
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	102
Number of non-fatal accidents outside,	5
Number of tons of coal produced per fatal accident inside,	330,009
Number of persons employed per fatal accident inside,	309
Number of persons employed per fatal accident outside,	1,139
Number of persons employed per non-fatal accident inside,	73
Number of persons employed per non-fatal accident outside,	228
Number of wives made widows,	15
Number of children made orphans,	32
Number of steam locomotives used inside of mines,	1
Number of steam locomotives used outside,	5
Number of compressed air locomotives used inside,	12
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	27
Number of electric motors used outside,	———
Number of fans in use,	27
Number of furnaces in use,	4
Number of gaseous mines in operation,	19
Number of non-gaseous mines in operation,	11
Number of new mines opened,	———
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Westmoreland Coal Company,	2,127,079
Keystone Coal and Coke Company,	1,539,075
New York and Cleveland Gas Coal Company,	1,053,573
Ocean Coal Company,	856,942
Penn Gas Coal Company,	655,244
Pittsburg-Westmoreland Coal Company,	618,720
Pittsburg and Baltimore Coal Company,	556,103
Manor Gas Coal Company,	311,182
W. B. Skelly Coal Company,	88,091
Adamsburg Gas Coal Company,	52,140
United-Connellsville Coke Company,	27,865
G. Vogele Sons and Company,	14,957
Weinman Brothers,	7,634
Steel and Scott Company,	6,365
Dunn-Connellsville Coal and Coke Company,	5,235
Total,	7,920,205

Production by Counties

Westmoreland,	7,209,137
Allegheny,	711,068
Total,	7,920,205

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Westmoreland Coal Co.,	5	--------	5	29	1	30	425,416	73,348	1,695	242	1,937	339	--------	58	242
Keystone Coal and Coke Co.,	8	--------	8	33	2	35	192,384	46,639	1,637	322	1,959	204	--------	49	161
New York and Cleveland Gas Coal Co.,	5	--------	5	10	--------	10	210,715	105,357	1,098	91	1,189	219	--------	109	--------
Ocean Coal Co.,	1	--------	1	6	--------	6	856,942	142,824	611	107	718	611	--------	102	--------
Penn Gas Coal Co.,	--------	--------	--------	3	--------	3	--------	218,415	593	97	690	--------	--------	197	--------
Pittsburg-Westmoreland Coal Co.,	--------	--------	--------	3	--------	3	--------	206,240	656	77	733	--------	--------	219	--------
Pittsburg and Baltimore Coal Co.,	5	--------	5	11	--------	11	111,221	50,555	513	99	612	102	--------	47	--------
Manor Gas Coal Co.,	--------	1	1	4	1	5	--------	77,795	316	45	361	--------	45	79	45
W. B. Skelly Coal Co.,	--------	--------	--------	1	--------	1	--------	88,091	69	13	82	--------	--------	69	--------
Adamsburg Gas Coal Co.,	--------	--------	--------	1	1	2	--------	52,140	114	11	125	--------	--------	114	11
United-Connellsville Coke Co.,	--------	--------	--------	1	--------	1	--------	27,865	37	21	58	--------	--------	37	--------
Miscellaneous Companies,	--------	--------	--------	--------	--------	--------	--------	--------	66	14	80	--------	--------	--------	--------
Totals and averages for district,	24	1	25	102	5	107	330,009	77,649	7,405	1,139	8,544	309	1,139	73	228

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	1	----	1	----	----	1	----	----	----	----	----	3	12.50
Falls of slate,	1	1	----	1	1	1	----	----	----	----	2	1	8	33.34
Falls of roof,	----	----	----	----	----	----	----	----	1	----	----	1	2	8.33
Mine cars,	2	----	1	----	----	----	1	2	1	1	1	----	9	37.50
Suffocation by gas, etc.,	2	----	----	----	----	----	----	----	----	----	----	----	2	8.33
Totals,	5	2	1	2	1	1	2	2	2	1	3	2	24	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	----	----	----	1	1	100.00
Totals,	----	----	----	----	----	----	----	----	----	----	----	1	1	100.00
Grand totals inside and outside,	5	2	1	2	1	1	2	2	2	1	3	3	25	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	3	----	3	2	----	1	5	2	----	3	19	18.63
Falls of slate,	5	7	6	5	----	2	2	3	6	2	3	7	48	47.06
Falls of roof,	----	----	1	1	----	----	----	----	----	----	----	1	3	2.94
Mine cars,	----	2	4	1	----	2	1	3	----	----	3	3	19	18.63
Explosions of powder and dynamite,	----	----	----	----	7	----	----	----	----	1	----	----	8	7.84
Blasts, premature and otherwise,	----	----	1	----	----	----	----	----	----	----	----	----	1	.98
Miscellaneous,	2	1	----	----	----	1	----	----	----	----	----	----	4	3.92
Totals,	7	10	15	7	10	7	3	7	11	5	6	14	102	100.00
Causes of Accidents Outside														
Cars,	1	1	1	1	----	----	----	----	----	----	----	1	5	100.00
Totals,	1	1	1	1	----	----	----	----	----	----	----	1	5	100.00
Grand totals inside and outside,	8	11	16	8	10	7	3	7	11	5	6	15	107	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	1	----	2	1	1	2	----	1	----	1	2	12
Machine runners,	1	----	----	----	----	----	----	----	----	----	----	----	1
Machine loaders,	1	1	----	----	----	----	----	----	----	----	1	----	3
Drivers and runners,	1	----	----	----	----	----	----	1	1	1	----	----	4
Doorboys and helpers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Laborers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Switch boys,	----	----	----	----	----	----	----	----	----	----	1	----	1
Motormen,	----	----	----	----	----	----	----	1	----	----	----	----	1
Totals,	5	2	1	2	1	1	2	2	2	1	3	2	24
Outside													
Laborers,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	----	----	----	----	----	----	----	----	----	----	----	1	1
Grand totals inside and outside,	5	2	1	2	1	1	2	2	2	1	3	3	25

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	4	5	5	5	10	3	1	4	5	3	2	6	53
Machine runners,	----	----	1	----	----	1	----	----	1	----	----	----	3
Machine loaders,	2	2	4	1	----	2	1	1	4	2	1	5	25
Machine scrapers,	----	----	----	----	----	----	----	----	1	----	----	1	2
Drivers and runners,	----	1	2	1	----	1	1	----	----	----	1	1	8
Doorboys and helpers,	----	----	----	----	----	----	----	1	----	----	----	----	1
Company men,	----	----	----	----	----	----	----	1	----	----	----	----	1
Laborers,	----	1	1	----	----	----	----	----	----	----	----	1	3
Motormen,	----	1	----	----	----	----	----	----	----	----	1	----	2
Shot-firers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Roadmen,	----	----	1	----	----	----	----	----	----	----	----	----	1
Grippers,	----	----	----	----	----	----	----	----	----	----	1	----	1
Electricians,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	7	10	15	7	10	7	3	7	11	5	6	14	102
Outside													
Laborers,	----	1	----	1	----	----	----	----	----	----	----	----	2
Greasers,	1	----	----	----	----	----	----	----	----	----	----	----	1
Car Trimmers,	----	----	1	----	----	----	----	----	----	----	----	----	1
Blacksmiths and carpenters,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	1	1	1	1	----	----	----	----	----	----	----	1	5
Grand totals inside and outside,	8	11	16	8	10	7	3	7	11	5	6	15	107

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	----	----	----	1	----	----	----	----	----	1	1	----	3
English,	----	----	----	----	----	1	----	----	----	----	----	----	1
Scotch,	----	----	----	1	----	----	----	----	----	----	----	----	1
Irish,	1	----	----	----	----	----	----	----	----	----	----	----	1
Polish,	1	----	----	----	----	----	----	1	----	----	----	2	4
Italian,	1	1	----	----	----	----	2	1	----	----	1	----	6
Slavonian,	----	1	----	----	1	----	----	----	1	----	----	----	3
Lithuanian,	----	----	----	----	----	----	----	----	1	----	1	----	2
Austrian,	2	----	1	----	----	----	----	----	----	----	----	1	4
Totals,	5	2	1	2	1	1	2	2	2	1	3	3	25

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	5	1	5	1	6	3	----	1	2	----	2	2	28
English,	----	----	1	1	----	----	1	1	1	1	1	----	7
Welsh,	----	----	1	----	----	----	----	1	----	----	----	----	2
Irish,	----	----	----	----	1	----	1	----	----	----	----	1	3
German,	----	----	----	----	1	----	----	----	2	----	----	----	3
Polish,	----	2	1	----	1	1	----	----	1	1	----	1	8
Hungarian,	----	2	----	----	----	----	----	----	----	----	----	----	2
Italian,	----	1	1	2	----	1	----	----	3	2	----	5	15
Slavonian,	----	3	1	1	1	----	----	1	1	----	1	2	11
Lithuanian,	----	1	----	----	----	----	----	----	----	----	1	----	2
Austrian,	2	----	2	2	----	1	----	2	1	1	----	3	14
Russian,	----	----	2	1	----	1	1	----	----	----	1	1	7
Swedish,	----	----	2	----	----	----	----	----	----	----	----	----	2
French,	----	----	----	----	----	----	----	1	----	----	----	----	1
Bohemian,	----	1	----	----	----	----	----	----	----	----	----	----	1
Finnish,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals.	8	11	16	8	10	7	3	7	11	5	6	15	107

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Westmoreland Coal Co.																
Criterion,	Shaft,	Gaseous,	Fan,	20	10	8	105	3.2	Robinson,	Steam,		12	253,000	156,900	257,180	450
Export No. 1,	Drift,	Gaseous,	Fan,	12	5	3	90	2.9	Brazil,	Steam,		8	175,000	103,260	181,000	
Export No. 2,	Drift,	Non-gas.,	Fans,	7	1.3	2.7	140	2	Stine,	Electricity,					100,750	750
				25	8	6	100	2	Guibal,	Steam,			208,270	108,550	117,520	
Larimer,	Drift,	Gaseous,	Fan,	20	9	6	35	.7	Guibal,	Steam,		2	71,000	36,102	73,000	47
Westmoreland Shaft,	Shaft,	Gaseous,	Fan,	20	10	8.8	105	2.2	Robinson,	Steam,		11	236,100	90,500	245,100	448
Keystone Coal and Coke Co.																
Arona,	Slope,	Gaseous,	Fan,	25	8	8.5	62	2	Guibal,			8	149,100	72,292	152,040	420
Claridge,	Slope,	Gaseous,	Fan,	16	6	4.5	102	1.2	Guibal,			6	98,200	46,120	104,092	236
Keystone Shaft,	Shaft,	Gaseous,	Fan,	20	8	9.5	90	2.3	Capell,	Steam,		10	185,800	105,390	198,500	477
Madison,	Slope,	Gaseous,	Fan,	16.5	6.5	4.5	80	.9	Guibal,			8	95,400	56,610	100,000	133
Sewickley,	Slope,	Gaseous,	Fan,	20	7	5	91	3	Robinson,			8	141,740	87,050	150,940	371
New York and Cleveland Gas Coal Co.																
Duquesne,	Drift,	Non-gas.,	Furnace,								96	2	17,500	12,000	24,000	66
Lyons Run,	Slope,	Gaseous,	Fan,	13.5	7	6.4	130	2	Capell,	Steam,		12	89,500	66,486	99,000	409
Oak Hill No. 3,	Drift,	Non-gas.,	Fans,	11.5	7	5.3	120	1.5	Capell,	Electricity,		7	157,400	71,780	168,250	459
				11.5	7	5.3	396	1.5								
Oak Hill No. 5,	Drift,	Non-gas.,	Furnace,								80	4	56,590	28,200	61,590	164

Ocean Coal Co.																
Ocean No. 1,	Shaft,	Gaseous,	Fan,	16	6	7	130	2.75	Capell,	Steam,		7	139,920	71,900	148,920	317
Ocean No. 2,	Shaft,	Gaseous,	Fan,	18	5	6.6	100	2.3	Clifford-Capell.	Steam,		11	181,340	106,336	192,220	294
Penn Gas Coal Co.																
Penn Gas No. 2,	Shaft,	Gaseous,	Fan,	16	6	7.60	129	2.9	Capell,	Steam,		8	219,370	107,070	259,870	371
Penn Gas No. 5,	Slope,	Gaseous,	Fan,	13.5	5	6.40	145	1.8	Capell,	Electricity,		7	127,000	78,150	131,500	222
Pittsburg-Westmoreland Coal Co.																
Penn Manor No. 1,	Shaft,	Gaseous,	Fan,	11	7	3	85	1	Clifford-Capell.	Electricity,		4	95,860	52,680	105,100	359
Penn Manor No. 5,	Slope,	Gaseous,	Fan,	9	7	4.20		1.3	Capell,	Steam,		3	71,250	40,250	87,000	297
Pittsburg and Baltimore Coal Co.																
Edna No. 1,	Slope,	Gaseous,	Fan,	20	8	9.5	90	2.3	Capell,	Steam,		6	85,000	77,425	87,600	250
Edna No. 2,	Shaft,	Gaseous,	Fan,	20	7	9.5	86	2.2	Robinson,	Steam,		7	169,120	84,020	169,500	263
Manor Gas Coal Co.																
Denmark,	Slope,	Gaseous,	Fan,	16	7.6	7.6	133	2.8	Capell,	Steam,		6	202,500		206,500	316
W. B. Skelly Coal Co.																
Elizabeth,	Drift,	Non-gas.,	Fans,	6 6	1.3 1.3	2.7 2.7	130 130	*	Stine,	Electricity,		2	54,500	19,500	59,500	69
Adamsburg Gas Coal Co.																
Gress,	Slope,	Non-gas.,	Fan,	7	1.5	3	300	.5	Stine,	Steam,		2	40,500	25,200	45,200	114
United-Connellsville Coke Co.																
Madison,	Drift,	Non-gas.,	Fan,	6	1.3	2.7	350	.4	Stine,	Electricity,		2	48,400	14,000	50,200	37
G. Vogele Sons and Co.																
Hampton,	Drift,	Non-gas.,	Furnace,										10,250	6,000	11,500	25
Weinman Brothers Co.																
Weinman,	Drift,	Non-gas.,	Furnace,									1	5,120	4,800	6,340	10
Steel and Scott Co.																
Ward,	Drift,	Non-gas.,	Natural,									1	4,830	3,500	5,280	12
Dunn-Connellsville Coal and Coke Co.																
Little Gem,	Drift,	Non-gas.,	Natural,									1	8,020	5,500	9,000	20

*No record.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Westmoreland Coal Co.,	Criterion,	Shaft,	Gaseous,	20	Compressed Air,	Pittsburg,	69	78	60	349,002
	Export No. 1,	Drift,	Gaseous,	9	Electricity,		69	78	60	478,414
	Export No. 2,	Drift,	Non-gas.,	16	Electricity,		69	78	60	
	Westmoreland Shaft,	Shaft,	Gaseous,	21	Compressed Air,		69	78	60	311,356
Totals,				66						1,138,772
Keystone Coal and Coke Company,	Arona,	Slope,	Gaseous,	7	Electricity,	Pittsburg,	64	70	58	243,180
	Keystone Shaft,	Shaft,	Gaseous,	24	Compressed Air,		68	75	60	189,454
	Sewickley,	Slope,	Gaseous,	17	Compressed Air,		64	70	58	116,774
Totals,				48						549,408
Ocean Coal Co.,	Ocean No. 1,	Shaft,	Gaseous,	24	Compressed Air,	Pittsburg,	66	75	58	216,592
	Ocean No. 2,	Shaft,	Gaseous,	22			68	75	60	210,566
Totals,				46						427,158

Penn Gas Coal Co.,	Penn Gas No. 2,	Shaft,	Gaseous,	12	Compressed Air,	Pittsburg,	69	78	60	328,535
	Penn Gas No. 5,	Drift,	Gaseous,	9	Electricity,	Pittsburg,	69	78	60	173,785
Totals,				21						502,320
Pittsburg-Westmoreland Coal Co.,	Penn Manor No. 1,	Shaft,	Gaseous,	7	Electricity,	Pittsburg,	66	72	60	290,281
	Penn Manor No. 5,	Slope,	Gaseous,	8			69	78	60	181,376
Totals,				15						471,657
Pittsburg and Baltimore Coal Co.,	Edna No. 1,	Slope,	Gaseous,	8	Electricity,	Pittsburg,	66	72	60	212,751
	Edna No. 2,	Shaft,	Gaseous,	11			69	78	60	249,052
Totals,				19						461,803
Manor Gas Coal Co.,	Denmark,	Slope,	Gaseous,	10	Electricity,	Pittsburg,	67	74	60	224,125
W. B. Skelly Coal Co.,	Elizabeth,	Drift,	Non-gas.,	4	Electricity,	Pittsburg,	72	78	66	75,071
United-Connellsville Coke Co.,	Madison,	Drift,	Non-gas.,	1	Electricity,	Pittsburg,	69	78	60	8,044
Grand totals,				230						3,858,358

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Westmoreland Coal Co.						
Criterion,	Westmoreland,	E. G. Smith,	Irwin,	E. G. Smith,	Irwin,	Pennsylvania
Export Nos. 1 and 2,						
Larimer,						
Westmoreland Shaft,						
Keystone Coal and Coke Co.						
Arona,	Westmoreland,	H. F. Bovard,	Darragh,	H. F. Bovard,	Darragh,	Penna., Hempfield Branch
Claridge,		J. H. Patton,	Greensburg,	J. H. Patton,	Greensburg,	Penna., Manor Branch
Keystone Shaft,		H. F. Bovard,	Darragh,	H. F. Bovard,	Darragh,	Penna., Hempfield Branch
Madison,		H. F. Bovard,	Darragh,	H. F. Bovard,	Darragh,	Penna., Hempfield Branch
Sewickley,		H. F. Bovard,	Darragh,	H. F. Bovard,	Darragh,	Penna., Hempfield Branch
New York and Cleveland Gas Coal Co.						
Duquesne,	Allegheny,	Hugh Dunning,	Wilkinsburg, R. F. D. No. 1.	Hugh Dunning,	Wilkinsburg, R. F. D. No. 1.	Pennsylvania
Lyons Run,	Westmoreland,			Thomas Howell,	Irwin, R. F. D. No. 2.	Pennsylvania
Oak Hill No. 3,	Allegheny,			Hugh Dunning,	Wilkinsburg, R. F. D. No. 1.	Penna. and B. and L. E.
Oak Hill No. 5,	Allegheny,			Hugh Dunning,	Wilkinsburg, R. F. D. No. 1.	Bessemer and Lake Erie
Ocean Coal Co.						
Ocean No. 1,	Westmoreland,	Thomas Fisher,	Betz Building, Philadelphia.	Ed. Soppit,	Herminie,	Pennsylvania
Ocean No. 2,						
Penn Gas Coal Co.						
Penn Gas No. 2,	Westmoreland,	A. P. Cameron,	Irwin,	Thomas Evans,	Irwin,	Penna., Youghiogheny Branch Pennsylvania
Penn Gas No. 5,						

Pittsburg-Westmoreland Coal Co. Penn Manor No. 1, Penn Manor No. 5,	Westmoreland,	H. K. Knopf,	Fulton Building, Pittsburg.	James G. Ferguson, W. M. Bird,	Manor, Harrison City,	Pennsylvania, Manor Branch
Pittsburg and Baltimore Coal Co. Edna No. 1, Edna No. 2,	Westmoreland,	J. D. O'Neil,	Bank for Savings Building, Pittsburg.	Thomas Cross, Phil. S. Eammons,	Adamsburg, Wendel,	Baltimore and Ohio
Manor Gas Coal Co. Denmark,	Westmoreland,	A. P. Cameron,	Irwin,	A. P. Cameron,	Irwin,	Pennsylvania, Manor Branch
W. B. Skelly Coal Co., Elizabeth,	Westmoreland,	W. B. Skelly,	Export,	W. B. Skelly,	Export,	Pennsylvania
Adamsburg Gas Coal Co. Gress,	Westmoreland,	W. A. Huff,	Greensburg,	H. F. Bair,	Adamsburg,	Baltimore and Ohio
United-Connellsville Coke Co. Madison,	Westmoreland,	H. R. Sacket,	Gans,	Hugh Muir,	Arona,	Penna., Hempfield Branch
G. Vogele Sons and Co. Hampton,	Allegheny,	J. Weinman,	Wilkinsburg,	J. Weinman,	Wilkinsburg,	
Weinman Brothers Weinman,	Allegheny,	J. Weinman,	Wilkinsburg,	J. Weinman,	Wilkinsburg,	
Steel and Scott Co. Ward,	Allegheny,	J. F. Steel,	7014 Kelly Street, Pittsburg.	J. F. Steel,	7014 Kelly Street, Pittsburg.	
Dunn-Connellsville Coal and Coke Co. Little Gem,	Westmoreland,	John W. Bistor,	Adamsburg,	John W. Bistor,	Adamsburg,	Baltimore and Ohio

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Westmoreland Coal Co.																
Criterion,	Westmoreland,	644,554	11,143	1,505	.....	657,202	.....	.....	285	529	1	9	.....	.....	48,225	42
Export Nos. 1 and 2,	Westmoreland,	838,358	11,957	1,261	.....	851,576	.....	.....	230	845	4	5	.....	.....	2,500	51
Larimer,	Westmoreland,	99,296	3,196	24	.....	102,516	.....	.....	275	57	....	2	.....	.....	.....	6
Westmoreland Shaft,	Westmoreland,	506,770	6,208	2,807	.....	515,785	.....	.....	242	506	....	14	.....	.....	30,000	45
Totals,		2,088,978	32,504	5,597	.....	2,127,079	.....	.....	.....	1,937	5	30	.....	.....	80,725	144
Keystone Coal and Coke Co.																
Arona,	Westmoreland,	492,947	2,744	1,135	.....	496,826	.....	.....	256	509	2	17	42,000	5,400	.....	33
Claridge,	Westmoreland,	271,512	3,606	921	.....	276,039	.....	.....	271	279	3	4	5,000	50	400	11
Keystone Shaft,	Westmoreland,	440,379	12,419	668	.....	453,466	.....	.....	249	569	1	9	38,000	4,700	.....	34
Madison,	Westmoreland,	87,045	425	59	.....	87,529	.....	.....	122	149	....	1	12,250	200	.....	8
Sewickley,	Westmoreland,	217,471	7,359	385	.....	225,215	.....	.....	194	453	2	4	34,500	3,900	.....	36
Totals,		1,509,354	26,553	3,168	.....	1,539,075	.....	.....	.....	1,959	8	35	131,750	14,250	400	122
New York and Cleveland Gas Coal Co.																
Duquesne,	Allegheny,	49,735	502	523	.....	50,760	.....	.....	150	76	....	....	200	.....	.....	5
Lyons Run,	Westmoreland,	366,089	4,439	933	.....	371,461	.....	.....	243	429	3	9	2,700	.....	.....	19
Oak Hill No. 3,	Allegheny,	473,077	5,651	631	.....	479,359	.....	.....	271	503	1	1	1,500	50	.....	20
Oak Hill No. 5,	Allegheny,	148,995	1,472	1,526	.....	151,993	.....	.....	231	181	1	....	.....	.....	.....	10
Totals,		1,037,896	12,064	3,613	.....	1,053,573	.....	.....	.....	1,189	5	10	4,400	50	.....	54

Ocean Coal Co.																
Ocean No. 1,	Westmoreland,	427,824	12,178	1,336		441,338			284	371	1	4	18,000	1,000	1,600	36
Ocean No. 2,	Westmoreland,	402,926	12,178	500		415,604			277	347		2	20,600	300		22
Totals,		830,750	24,356	1,836		856,942				718	1	6	38,600	1,300	1,600	58
Penn Gas Coal Co.																
Penn Gas No. 2,	Westmoreland,	430,501	14,811	3,582		448,894			246	433		2			40,000	36
Penn Gas No. 5,	Westmoreland,	205,806	51	493		206,350			138	257		1	200	4,000	6,000	22
Totals,		636,307	14,862	4,075		655,244				690		3	200	4,000	46,000	58
Pittsburg-Westmoreland Coal Co.																
Penn Manor No. 1,	Westmoreland,	392,438	4,873	2,942		400,253			233	402		2	41,123			34
Penn Manor No. 5,	Westmoreland,	213,162	3,674	1,631		218,467			192	331		1	24,274			30
Totals,		605,600	8,547	4,573		618,720				733		3	65,397			64
Pittsburg and Baltimore Coal Co.																
Edna No. 1,	Westmoreland,	230,032	8,259	1,362		239,653			199	298	1	6			23,000	33
Edna No. 2,	Westmoreland,	303,615	11,163	1,672		316,450			203	314	4	5			25,000	35
Totals,		533,647	19,422	3,034		556,103				612	5	11			48,000	68
Manor Gas Coal Co.																
Denmark,	Westmoreland,	298,751	10,206	2,225		311,182			182	361	1	5	2,000	1,500	1,000	26
W. B. Skelly Coal Co.																
Elizabeth,	Westmoreland,	86,156	1,375	560		88,091			194	82		1				3
Adamsburg Gas Coal Co.																
Gress,	Westmoreland,	49,772	1,825	543		52,140			220	125		2				6
United-Connellsville Coke Co.																
Madison,	Westmoreland,			90	27,775	27,865	23,220	45	202	58		1	50			4
G. Vogele Sons and Co.																
Hampton,	Allegheny,		80	14,877		14,957			261	25						5
Weinman Brothers																
Weinman,	Allegheny,			7,634		7,634			300	10						2
Steel and Scott Co.																
Ward,	Allegheny,	6,000	365			6,365			307	13			700			1

TABLE 2.—Continued.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of so-called safety explosives used	
Dunn-Connellsville Coal and Coke Co.																
Little Gem,	Westmoreland,	.....	10	25	5,200	5,235	3,900	40	171	32	.....	.....	.....	.....	.....	5
Grand totals,		7,683,211	152,169	51,850	32,975	7,920,205	27,120	85	.....	8,544	25	107	243,097	21,100	177,725	620

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Nummber of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Westmoreland Coal Co.,	Westmoreland,	14	193	32	4,457	4,650			8	28	2,811	8	4,658	820	6	5
Keystone Coal and Coke Co.,	Westmoreland,			19	3,970	3,970		9	3	29	2,460	13	12,230	3,700	4	9
New York and Cleveland Gas Coal Co.,	Westmoreland, Allegheny,	2	150	7	750	900	6		2	7	1,200	3	1,500	300	2	
Ocean Coal Co.,	Westmoreland,			8	1,850	1,850			3	15	3,918	8	1,451	775	4	4
Penn Gas Coal Co.,	Westmoreland,			6	1,508	1,508		3	1	9	1,602	4	3,400	1,200	1	4
Pittsburg-Westmoreland Coal Co.	Westmoreland,	4	160	7	1,000	1,160				6	840	5	1,250	530	3	
Pittsburg and Baltimore Coal Co.	Westmoreland,			12	1,800	1,800			6	8	3,360	4	1,475	1,120	3	2
Manor Gas Coal Co.,	Westmoreland,			10	1,185	1,185			2	6	1,400	6	7,400	3,700	3	
W. B. Skelly Coal Co.,	Westmoreland,			3	450	450			2	2	400				2	
Adamsburg Gas Coal Co.,	Westmoreland,			2	150	150				2	25	1	200	200		
Steel and Scott Co.,	Allegheny,	1	20			20				1	25					
Totals,		21	523	107	17,120	17,643	6	12	27	113	18,041	52	33,564	12,345	28	24

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Westmoreland Coal Co.,	Westmoreland,	5	6	16	409	69	867	69	117	8	118	11	1,695	----	4	10	31	----	5	192	242	1,937
Keystone Coal and Coke Co.,	Westmoreland,	5	1	16	660	56	532	53	95	25	192	2	1,637	5	5	41	30	----	10	231	322	1,959
New York and Cleveland Gas Coal Co.,	Westmoreland, Allegheny,	4	3	2	944	------	------	----	47	20	------	78	1,098	2	1	10	13	----	5	60	91	1,189
Ocean Coal Co.,	Westmoreland,	2	2	8	90	45	316	45	34	4	44	21	611	1	2	12	20	----	4	68	107	718
Penn Gas Coal Co.,	Westmoreland,	2	2	8	179	21	234	21	57	6	63	------	593	----	2	12	16	----	4	63	97	690
Pittsburg-Westmoreland Coal Co.	Westmoreland,	2	----	6	146	32	334	23	60	9	4	40	656	2	2	7	7	----	2	57	77	733
Pittsburg and Baltimore Coal Co.	Westmoreland,	2	----	10	61	20	287	20	54	11	48	------	513	2	1	4	16	----	4	72	99	612
Manor Gas Coal Co.,	Westmoreland,	1	1	4	98	13	130	13	26	8	10	12	316	1	1	6	9	----	2	26	45	361
W. B. Skelly Coal Co.,	Westmoreland,	1	----	----	13	3	41	3	3	----	5	------	69	1	----	1	2	----	1	8	13	82
Adamsburg Gas Coal Co.,	Westmoreland,	1	----	----	105	------	------	----	5	----	3	------	114	1	----	2	3	----	----	5	11	125
United-Connellsville Coke Co.,	Westmoreland,	1	----	----	22	1	8	1	3	----	1	------	37	1	1	1	----	18	----	------	21	58
G. Vogele Sons and Co.,	Allegheny,	1	1	----	19	------	------	----	2	----	------	------	23	1	----	----	----	----	1	------	2	25
Weinman Brothers,	Allegheny,	1	----	----	9	------	------	----	----	----	------	------	10	----	----	----	----	----	----	------	------	10
Steel and Scott Co.,	Allegheny,	1	----	----	12	------	------	----	----	----	------	------	13	----	----	----	----	----	----	------	------	13
Dunn-Connellsville Coal and Coke Co.	Westmoreland,	1	----	----	17	------	------	----	2	----	------	------	20	1	1	----	----	8	----	2	12	32
Totals,		30	16	70	2,784	260	2,749	248	505	91	488	164	7,405	18	20	106	147	26	38	784	1,139	8,544

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Westmoreland Coal Co.,	Westmoreland,	20	20	24	19	18	20	22	20	21	24	25	25	258
Keystone Coal and Coke Co.,	Westmoreland,	13	13	17	10	9	16	25	24	23	23	22	23	218
New York and Cleveland Gas Coal Co.,	Allegheny, Westmoreland,	20	14	18	14	17	19	20	22	21	20	19	20	224
Ocean Coal Co.,	Westmoreland,	25	17	23	20	22	24	26	26	24	25	24	25	281
Penn Gas Coal Co.,	Westmoreland,	13	12	14	13	13	15	15	14	21	18	21	23	192
Pittsburg-Westmoreland Coal Co.,	Westmoreland,	20	19	20	19	18	17	17	17	20	16	13	17	213
Pittsburg and Baltimore Coal Co.,	Westmoreland,	9	15	10	12	12	23	21	17	19	21	21	19	201
Manor Gas Coal Co.,	Westmoreland,	13	15	17	9	9	13	12	15	21	16	20	22	182
W. B. Skelly Coal Co.,	Westmoreland,	14	12	17	12	10	14	17	14	25	17	21	21	194
Adamsburg Gas Coal Co.,	Westmoreland,	23	23	24	14	9	11	13	21	19	23	19	18	220
United-Connellsville Coke Co.,	Westmoreland,	20	20	21	21	19	16	------	------	9	26	25	25	202
G. Vogele Sons and Co.,	Allegheny,	24	23	26	20	19	15	21	17	26	26	22	22	261
Weinman Brothers,	Allegheny,	24	24	26	24	25	26	26	26	25	26	22	26	300
Steel and Scott Co.,	Allegheny,	26	24	26	24	26	26	25	26	26	26	26	26	307
Dunn-Connellsville Coal and Coke Co.,	Westmoreland,	26	24	27	3	------	------	------	------	25	26	26	24	171

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 1	Charles Ringcavage,	Polish,	Trip r der,	20	S.			Export No. 2,	Westmoreland,	Fatally injured by being caught between mine cars on side track. He jumped between cars when the motor was pushing an empty trip and the cars bumped up and caught him.
15	Mike Wargo,	Austrian,	Miner,	16	S.			Oak Hill No. 3,		Instantly killed by fall of slate. He was working in No. 2 rib on butt entry and went to No. 7 rib to get a drink. It seems he had just gotten there and stooped over to look at the man taking coal down when a piece of slate fell on him.
29	Paul Bozwia,	Italian,	Loader,	23	S.			Sewickley,		Suffocated by after-damp of an explosion of gas and coal dust at face of room. They were cutting a room with a chain coal-cutting or mining machine and heard a noise under and around the machine, which was explosive gas being liberated from the bottom. The gas was ignited from the open lights they used, and this was greatly intensified by the coal dust held in suspension in the air, causing a local explosion. Before any one could reach them they had perished.
	Alonzo Carnahan,	Irish,	Machine runner	21	M.	1	1			
	Anton Oswald,	Austrian,	Trapper,	14	S.			Lyons Run,		Instantly killed by mine cars while riding on loaded trip. The trip jumped the track and caught him between car and timber on side track.

Feb. 4	Leo Tratwick,	Slavonian,	Miner,	30	M.	1	2	Edna No. 2,		Instantly killed by fall of slate at face of rib on butt entry. He was engaged in cleaning up roadway into the rib when a slab of slate fell off side of pillar and caught him. An inquest was held and a verdict of accidental death was rendered.
20	Melo Drago,	Italian,	Loader,	51	M.	1	3	Export,		Instantly killed by fall of coal at face of room on butt entry. While shearing a cut of coal on the tight side of his room he released the coal and it fell on him.
March 23	August Milage,	Austrian,	Laborer,	29	S.			Criterion,		Fatally injured by being caught between loaded trip and empty car at bottom of the shaft. While he was pushing a loaded car down to cager at bottom of shaft a driver came out of shaft bottom entry with his loaded trip, and bumped into the car Milage was pushing, and his legs were caught between bumpers. Died in hospital March 26.
April 8	Derbert Copeland,	American,	Miner,	25	S.			Edna No. 1,	Westmoreland,	Instantly killed by fall of roof. He was working with his father in No. 7 rib on No. 6 butt entry, and while drawing post at the face of the rib the roof fell and caught him.
19	Walter Neilson,	Scotch,	Miner,	41	M.	1	5	Keystone Shaft,		Instantly killed by fall of slate in No. 12 rib on No. 5 butt entry, while he and his partner were undermining coal at the face of the rib next to end of rib.
May 5	Anton Mesgon,	Slavonian,	Miner,	32	M.	1	2	Claridge,		Instantly killed by fall of slate at neck of room on butt entry. He had just finished loading a car and started to pull down what he thought to be a small piece of slate over the roadway, when suddenly more fell than was expected and caught him.
June 22	Richard Wilson,	English,	Miner,	62	M.	1		Claridge,		Instantly killed by fall of slate in room on butt entry, while working in a cut-through. He was either passing the wagon on the rib side of the room or going back into the cut-through to work again, when the slate fell on him.
July 16	August Barrio,	Italian,	Miner,	27	S.			Oak Hill No. 5,	Allegheny,	Instantly killed by fall of coal at face of rib while undermining the coal. He had no sprag set under the coal to make it secure.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
July 26	Batista Tobaechi,	Italian,	Miner,	32	M.	1	3	Lyons Run,	Westmoreland,	Instantly killed by being run over by loaded dilly trip on the dilly way while going back into the mine. He was about 3,500 feet from pit mouth. He should have used the manway.
Aug. 24	Andy Hinzich,	Polish,	Motorman,	27	M.	1	2	Edna No. 2,		Instantly killed by being caught between mine car and entry pillar while coming out of No. 6 face entry down a one per cent. grade. It is supposed that he saw a fall on the motor road and just as the motor was near the fall he jumped off, and when the motor struck the fall the cars left the track and caught him.
27	Mike Darin,	Italian,	Driver,	20	S.	....	...	Export No. 2,		Fatally injured by being run over by loaded car. He was dropping a loaded car of slate from dip entry, on a 2 per cent. grade, to main side track. He jumped on front end of the car and in cutting the mule loose from the car he fell off and the car passed over his left leg, cutting it off. He died two days later in the hospital.
Sept. 7	Jacob Itocanich,	Lithuanian,	Driver,	27	M.	1	1	Ocean No. 1,		Fatally injured while lifting loaded car onto the track. He had the car raised and called to his team of mules to start, which they did, and the car swung around and he was caught between car and entry pillar. Died the next day.
22	Valentine Otcebic,	Slavonian,	Miner,	35	M.	1	3	Claridge,		Instantly killed by fall of roof while drawing posts at No. 1 room on No. 1 butt entry. They had taken out all

									the posts on one side and had commenced to draw the posts on the other side. Otcebic had not taken many out when he cut one of the posts with his axe. He insisted upon knocking the post out, and struck it again, when the roof fell five feet thick and covered him up.
Oct.	13	Joseph McGinn, ...	American,..	Driver, ...	26	S.	Edna No. 2, ...		Fatally injured between entry pillar and mine car. As he was nearing the cut-through between the two face entries he walked alongside of trip on the tight side of the road, and while applying the brake on the cars his clothes caught on the car and he was dragged to a narrow place at curve of cut-through and caught between pillar and mine car. Died the next day in the Pittsburg hospital.
Nov.	8	John Yacketti, ...	Italian, ...	Miner, ...	17	S.	Lyons Run, ...	Westmoreland,	Instantly killed by fall of slate at face of room on butt parallel entry. His partner had taken down the breast coal and left the draw slate up. Yacketti was told to raise the bottom coal up and while raising the bottom coal he went underneath the slate and the slate fell on him.
	18	Robert Ferguson, ...	American,..	Switch boy,...	15	S.	Arona, ...		Instantly killed by being run over by electric motor and loaded trip of cars. He had cleaned No. 10 butt switches and then lay down on the motor road, with his legs across the track and his body between the rail and entry pillar, and fell asleep, and the electric motor coming out with a loaded trip of forty-one cars ran over him. The motorman did not see the boy until it was too late. The Coroner's verdict was "accidental death," and the motorman and mine officials were exonerated from blame.
	20	George Buzzams, ...	Lithuanian,	Loader, ...	40	M. 1	Edna No. 2,.....		Instantly killed by fall of slate at face of butt entry. He had loaded out all the coal and then commenced knocking out the slate post, and while reaching underneath the slate to draw out a post that was lying on the bottom he fell under the falling slate.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 3	John King,	Austrian,	Miner,	37	M.	1	4	Arona,	Westmoreland.	Fatally injured by fall of roof at face of butt entry stumps while loading a car with coal. He did not hear the roof working. Died January 8, 1910.
16	Louis Sobski,	Polish,	Laborer,	39	M.	1	2	Denmark,		Instantly killed by being crushed between railroad car and post under the tipple. He was employed to keep the slack shoveled from the end of the chute, so as to load the cars full. It is supposed that he undertook to drop down his loaded car and an empty car coupled behind, and in some way got between the cars and was squeezed against the tipple post. There were no witnesses to the accident. Outside.
31	John Losato,	Polish,	Miner,	36	M.	1	2	Export No. 1,		Fatally injured by fall of slate at face of rib on butt entry, while drawing posts to make a break of the roof. While knocking out the last post the slate fell on him. Died January 3, 1910.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan.	3	John Kump,	Finnish,	Loader,	38	M.	Edna No. 1,	Westmoreland,	Back and leg injured by fall of slate at face of butt entry.
	4	Charles Smoke,	Austrian,	Miner,	35	S.	Ocean No. 1,		Foot broken and badly smashed by fall of slate at face of room on left butt parallel entry.
		Jacob Goddicey,	American,	Miner,	21	S.	Lyons Run,		Leg broken by fall of slate at face of room on parallel butt entry.
	7	Miles Berkhart,	American,	Miner,	56	M.	Gress		Eye, injured. While taking down slate at face of room on butt entry his pick slipped in his hand and struck him in the eye.
	8	James G. Copeland,	American,	Electrician,	27	S.	Criterion,		Foot badly cut and bruised. He started to come out of the mine, and seeing the cage at the bottom of the shaft and not noticing that it was loaded with boards, he gave the required signal and the cage started up the shaft. When within fifty feet of the top the boards caught on the shaft timbers which caused them to scatter in all directions and strike him.
	9	Charles Rager,	American,	Greaser,	15	S.	Claridge,		Leg crushed by falling in front of loaded trip of mine cars while cutting off dilly trip. Leg had to be amputated. Outside.
	15	Steve Levoitch,	Austrian,	Miner,	21	S.	Oak Hill No. 3,	Allegheny,	Shoulder broken by a fall of slate at face of rib on butt entry.
	25	Henry Haines,	American,	Loader,	23	S.	Denmark,	Westmoreland,	Foot bruised and face slightly cut by fall of slate at face of room.
Feb.	1	John Krouse,	Bohemian,	Motorman,	24	S.	Denmark,		Legs fractured by being caught between mine car and rib.
	2	Andy Cojnac,	Slavonian,	Laborer,	25	M.	Denmark,		Leg fractured by being struck by a rope while placing railroad cars under the tipple. Outside.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 4	Frank Nemich,	Slavonian,	Miner,	17	S.	Edna No. 2,		Left ankle and right leg broken and wrist sprained by fall of slate at face of rib on No. 2 butt.
	Louis Vermaz,	Hungarian,	Miner,	33	M.	Arona,		Leg fractured in two places by fall of slate at face of room on No. 12 butt.
	Rockic Persia,	Italian,	Driver,	22	S.	Arona,		Body and hips bruised by being caught between loaded car and rib while dropping car down the entry.
9	Joseph Suchosh,	Lithuanian,	Miner,	27	S.	Ocean No. 1,		Leg fractured by a fall of slate at face of room on butt entry.
10	Joseph Stahursky,	Polish,	Laborer,	28	M.	Criterion,		Back broken while cleaning out the sump at bottom of shaft. He failed to notify the engineer that he intended to clean out the sump and the cage landed upon him while he was shoveling out coal.
17	John Bubensih,	Slavonian,	Loader,	24	S.	Westmoreland Shaft,	Westmoreland,	Great toe broken and cut and bruised by fall of slate at face of room on No. 5 butt.
	Louis Loutsenzer,	American,	Miner,	34	M.	Larimer,		Eye and arm and leg cut and injured internallly, by fall of slate at face of room on entry.
25	John Pigan,	Hungarian,	Miner,	37	M.	Penn Gas No. 2,		Leg broken by fall of slate at face of rib on butt entry.
	Joseph Kovalkosky,	Polish,	Loader,	30	S.	Sewickley,		Leg fractured in two places and cut above the eye by fall of slate at face of room on butt entry.
March 1	Charles Johnston,	Swedish,	Roadman,	42	M.	Arona,		Leg fractured and hip dislocated by fall of roof coal that fell off corner of room neck, while pushing mine car off entry into the room.
4	Frank Oylinger,	American,	Miner,	38	M.	Arona,		Leg fractured by fall of coal at face of No. 12 face entry off main G entry, while shoveling out coal to load a car.

March	4	James Clifford,	American,	Shot firer,	35	M.	Edna No. 2,	Hand shot off and breast lacerated. A charge of carbonite exploded while he was preparing a shot at face of No. 14 North face entry.
		Dionegegio Battamsti,	Italian,	Loader,	22	S.	Westmoreland Shaft,	Back and hip bruised by fall of slate at face of room on No. 13 butt.
	5	Abraham Harvey,	Welsh,	Miner,	39	M.	Westmoreland Shaft,	Hip bruised and rib broken by fall of slate at face of room on No. 15 butt.
	8	Alvy K. May,	American,	Car trimmer,	40	M.	Gress,	Foot crushed by being run over by railroad car under the tipple, while attempting to board car to set the brakes. Amputation of foot was necessary. Outside.
	9	Joseph Berttz,	Polish,	Laborer,	25	S.	Claridge,	Hand cut and arm bruised by being run over by an empty car.
	10	Martin Jopoff,	Russian,	Loader,	40	M.	Westmoreland Shaft,	Finger cut off by fall of slate at face of main face entry.
		Mike Paitch,	Austrian,	Loader,	32	M.	Westmoreland Shaft,	Ankle sprained by being thrown when the car in which he was riding collided with another car on the same track, on haulage road on No. 4 butt.
		Charles Duigg,	American,	Driver,	26	M.	Edna No. 1,	Leg injured by mine car on flat entry.
	13	Moses Baker,	English,	Miner,	50	M.	Westmoreland Shaft,	Scalp injured by fall of coal, while in a stooping position, at face of butt on main entry.
	17	Joseph Kremn,	Austrian,	Driver,	24	M.	Criterion,	Wrist broken by being caught between mine car and entry pillar on No. 2 butt.
		Hugo Killgreen,	Swedish,	Machine runner,	36	M.	Arona,	Leg fractured by fall of roof at face while cutting a room on butt entry. The noise of the machine prevented him from hearing the roof working.
	22	Peter Gohofskey,	Russian,	Miner,	25	M.	Criterion,	Leg broken in two places by fall of slate at face of room on No. 4 butt.
	23	Albert Hubbler,	American,	Miner,	28	S.	Arona,	Leg fractured by fall of slate at face on E main entry pillar workings.
	27	Peter Locavage,	Slavonian,	Loader,	21	M.	Ocean No. 2,	Leg broken by fall of slate at face of room on butt south section.
April	3	Louis Costellitz,	Slavonian,	Miner,	39	M.	Claridge,	Leg broken by fall of slate at face of butt entry.
	7	John Bankowitch,	Austrian,	Laborer,	24	M.	Criterion,	Two ribs fractured and liver dislocated by mine car on slate dump. Outside.
		John Morgan,	English,	Miner,	61	M.	Ocean No. 1,	Three ribs broken by fall of slate at face of room on butt entry south.
	8	John Copeland, Sr.,	American,	Miner,	54	M.	Edna No. 1,	Back and kidneys injured by fall of roof while drawing post to set a break in pillar on No. 6 butt.
	9	Samuel Cornilli,	Italian,	Loader,	19	S.	Denmark,	Leg fractured by fall of slate at face of room on butt entry.

Westmoreland,

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
April 12	Angelo Chicona,	Austrian,	Miner,	25	S.	Keystone Shaft,	Westmoreland,	Back and hips injured by fall of slate at face of butt north entry.
13	Pasquella Pheul,	Italian,	Miner,	28	M.	Criterion,		Leg broken by fall of slate at face of room on motor road first right flat.
15	John Bartis,	Russian,	Driver,	37	S.	Edna No. 1,		Fingers squeezed by being caught between bumpers of cars on No. 12 Flat side track.
May 4	Michael Cain,	American,	Miner,	38	S.	Arona,		Face, head and legs severely burned.
	Irwin Baugham,	American,	Miner,	26	M.			Face, head and legs severely burned.
	James Adams,	Irish,	Miner,	34	M.			Face, head and legs severely burned.
	Fred Cramer,	American,	Miner,	19	S.			Face and wrists severely burned.
	August Zardis,	Polish,	Miner,	37	M.			Face, hands, left side and legs severely burned.
	John Yearman,	American,	Miner,	18	S.			Face and hands severely burned.
	August Cramer, Sr.,	German,	Miner,	49	M.			Face, neck and hands severely burned.
								These men were burned by an explosion of powder on the main East electric motor haulage road. It was the custom to haul the men in to the side track in the morning. There were about two hundred men on the empty trip at the time and the above named victims were in the 15th car from the electric motor. One of the men had a five-pound can of black powder, and a spark from an open light ignited the powder.
18	John Rachkus,	Slavonian,	Miner,	27	M.	Export No. 1,		Leg broken by fall of roof coal at face of butt entry.
25	Arthur Tunecliff,	American,	Miner,	32	M.	Ocean No. 1,		Leg broken by fall of coal at face of room.
29	James Stephenson,	American,	Miner,	27	M.	Arona,		Leg fractured by fall of coal at face of pillar on No. 11 butt.

June	1	John Wislofski,	Polish,	Miner,	28	M.	Claridge,			Leg broken by fall of coal at face of pillar or rib on lower flat.
	8	J. B. Freeman,	American,	Driver,	24	S.	Edna No. 1,			Fingers injured by being caught between mine car and entry pillar at room on No. 8 butt.
	17	Amel Ourchuck,	Russian,	Loader,	50	M.	Edna No. 2,			Back injured by fall of slate at face of room on No. 4 butt.
	18	Herman Wigle,	American,	Machine runner,	19	S.	Export No. 2,			Leg and foot bruised by being caught between mine car and entry pillar at room on No. 21 butt.
	24	Joseph Dawson,	American,	Miner,	33	S.	Madison,			Cheek bone broken. He was struck by a post at face of rib or pillar.
	26	Thomas Shaffer,	Austrian,	Miner,	32	M.	Lyons Run,			Legs and hips injured by fall of coal at face of room.
	29	Celepotio Gusseppi,	Italian,	Loader,	29	M.	Westmoreland Shaft,			Skull, hips and limbs bruised by fall of slate at face of butt air-way off main face entry.
July	3	Frank Rackley,	English,	Driver,	17	S.	Westmoreland Shaft,			Foot crushed and toe cut off by being caught between the bumpers of a loaded trip of cars at bottom of shaft.
	12	James Carey,	Irish,	Miner,	34	S.	Penn Manor No. 1,			Back bruised by fall of slate while setting a post for his own protection at face of west heading.
	27	John Andrews,	Russian,	Loader,	25	S.	Westmoreland Shaft,	Westmoreland,		Foot cut and lacerated by fall of slate at face of butt heading off main face entry.
Aug.	5	Lewis Genno,	French,	Miner,	26	S.	Keystone Shaft,			Back bruised by fall of slate while loading car with coal at face of escape entry air course.
	5	Frank Mock,	Austrian,	Miner,	28	M.	Lyons Run,			Back broken by fall of slate at face of room, while underminiag the coal.
	10	Fulet Cometor,	Slavonian,	Loader,	25	S.	Edna No. 2,			Foot crushed by fall of slate at face of room on butt entry, while taking down slate.
		Moses Baker,	English,	Miner,	49	M.	Criterion,			Shoulder dislocated by fall of coal at face of pillar on No. 5 butt first left flat, while undermining the coal.
	25	Joseph Loyd,	American,	Company man,	20	S.	Arona,			Arm fractured by being struck by mine car on main motor haulage road. He stumbled in getting off empty motor trip and fell towards cars.
	26	John Jones,	Welsh,	Trapper-boy,	15	S.	Keystone Shaft,			Legs and stomach injured by being run over by mine car on No. 5 butt off second north face entry.
		Mike Dobic,	Austrian,	Miner,	21	S.	Export No. 2,			Arm broken by being caught between mine car and entry pillar while dropping loaded car out of room on No. 6 butt.
Sept.	1	Frank Gaskoko,	Polish,	Miner,	27	M.	Keystone Shaft,			Leg broken in two places by fall of coal at face of room on No. 1 butt.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Sept. 7	Lena De Pao,	Italian,	Miner,	21	S.	Westmoreland Shaft,	Westmoreland,	Leg broken by fall of slate at face of No. 14 butt off No. 27 main entry stumps.
11	Andy Walton,	Austrian,	Loader,	40	M.	Edna No. 1,		Hips bruised, knee dislocated and ankle fractured by fall of coal while taking down coal at face of room.
17	James Richards,	English,	Loader,	39	M.	Sewickley,		Ankle dislocated by fall of slate while traveling to work on the motor haulage road.
	Mathew Brisnick,	German,	Miner,	34	M.	Lyons Run,		Body bruised by fall of roof coal while drawing post to make a break at face of heading.
20	Bertiam Abram,	American,	Machine scraper,	18	S.	Westmoreland Shaft,		Leg broken by fall of slate while shoveling the slack coal away from coal punching machine in rib on butt entry.
21	Martin Knorat,	German,	Loader,	38	M.	Arona,		Back and head cut and leg fractured by fall of roof coal while loading car at face of room on butt entry.
22	Ludivithey Scaraminte,	Italian,	Miner,	24	S.	Lyons Run,		Shoulder and leg injured by fall of coal while undermining the coal at face of room on butt entry.
27	Joseph Wright,	Slavonian,	Miner,	51	M.	Lyons Run,		Shoulder and collar bone broken by fall of slate posts at the face of room on butt entry.
	William Hartland,	American,	Machine runner,	27	S.	Westmoreland Shaft,		Head cut and back bruised by fall of slate while cutting room at the face of rib or pillar on butt entry.
29	Giacomo Minchen,	Italian,	Loader,	23	M.	Westmoreland Shaft,		Leg broken and other leg bruised by fall of slate while preparing to set a post to the slate at the face of room on butt entry.

Oct.	7	Frank Zitze,	Austrian,	Miner,	23	S.	Lyons Run,		Leg broken by fall of slate at face of room on butt entry, while loading a car of coal.
	8	Arsene Abatic,	Italian,	Miner,	25	S.	Madison,		Leg broken by fall of slate at the face of his room.
	13	John Sarginsky,	Polish,	Loader,	33	S.	Edna No. 2,		Back dislocated by fall of roof coal while shoveling slate into the gob at the face of his room.
		James Richards,	English,	Loader,	39	M.	Sewickley,		Leg fractured by fall of coal at the face of his entry, while taking down coal.
	18	Sebastian Faustine,	Italian,	Miner,	30	S.	Export No. 2,		Face, neck and arms burned by gases resulting from having fired a shot with black powder in the entry. He went back immediately after the shot went off and the open light on his head ignited the gases at face of No. 1 main entry.
Nov.	3	Alfred Scabby,	American,	Motorman,	16	S.	Arona,		Arm fractured by cars. While coming out with a loaded trip of cars he lost control of his motor going down grade and he jumped off the motor against the entry pillar, which caused him to fall backwards and strike his arm against one of the passing cars.
	6	Sigmund Dackenridge,	Russian,	Miner,	24	S.	Keystone Shaft,		Head cut and shoulder bruised by fall of slate at face of room.
	11	Joseph Zermut,	Lithuanian,	Loader,	43	S.	Penn Gas No. 5,	Westmoreland,	Leg broken by fall of slate at face of room.
	12	Joseph Kelly,	American,	Driver,	25	S.	Sewickley,		Leg fractured. While passing his mule, which was standing on the side track alongside of the air motor, the mule and the motor started, and the tail chain caught Kelly's ankle and drew his foot in front of motor wheels.
	20	John Galeo,	Slavonian,	Gripper,	32	M.	Denmark,		Head cut and shoulder bruised by cars on side track. While putting a loaded trip on endless rope haulage and tightening the grip on the rope with a grip stick, the stick slipped off the fork of the grip and he fell in front of loaded car, which ran over him.
	30	Thomas Clark,	English,	Miner,	31	M.	Penn Gas No. 2,		Hip dislocated and leg broken by fall of slate at face of pillar on No. 3 butt.
Dec.	1	Joseph Senernisky,	Slavonian,	Machine scraper,	24	M.	Keystone Shaft,		Leg broken by fall of coal. They were cutting a room on South butt entry and were finishing the tenth run when a slab of slate from the face fell upon Senernisky.

TABLE 5.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 3	Luie Mecheck,	Slavonian,	Loader,	22	S.	Ocean No. 2,		Head cut and leg and arm broken by fall of slate at face of entry, while loading a car with coal.
10	George B. Hutchinson,	American,	Carpenter,	35	M.	Keystone Shaft,		Hand bruised and finger broken. While raising a car in carpenter shop for repairs, the chain on crab caught on overhead cross-beam and parted, allowing the car to come back and catch his hand. Outside.
13	Robert McMahon,	Irish,	Driver,	16	S.	Keystone Shaft,		Hand crushed by being caught between cars while uncoupling motor of an empty trip on No. 4 South main side track.
17	Clyde Porter,	American,	Miner,	20	S.	Larimer,	Westmoreland.	Two fingers cut off and the remaining fingers on the same hand severely injured. While attempting to get on loaded cars on butt entry he fell with his hand on the rail and the car ran over it.
18	Joseph Corestorin,	Italian,	Loader,	32	S.	Criterion,		Collar bone broken by being caught between car and entry pillar at No. 2 butt air-course.
	Basa Terara,	Italian,	Loader,	26	S.	Criterion,		Leg broken in three places by fall of slate at face of room on butt entry, while shoveling out coal to load a car.
	Leo Zorzil,	Austrian,	Miner,	28	S.	Lyons Run,		Back and leg injured by fall of slate at face of room on butt entry.
	Valentine Santine,	Italian,	Miner,	30	M.	Westmoreland Shaft,		Small bone in leg broken by fall of roof at face of butt entry stumps.
20	Mike Cook,	Austrian,	Miner,	37	M.	Export No. 2,		Leg broken by fall of slate at face of butt entry stumps.

Dec.	21	Charles Zimamra,	Russian,	Miner,	33	S.	Lyons Run,	Westmoreland,	Head, face and thumb injured by fall of coal at face of room on butt entry.
	22	Antonia Vanchich,	Austrian,	Loader,	31	M.	Penn Manor No. 5,		Ankle broken by a fall of slate at face of room on butt entry.
	23	Mike Paulin,	Polish,	Miner,	22	S.	Penn Manor No. 1,		Leg broken by fall of coal at face of room on butt east entry.
	24	Joseph Paul,	Italian,	Laborer,	25	M.	Keystone Shaft,		Leg broken by fall of slate on the north haulage road, while preparing to set timbers.
	27	Peter Barber,	Italian,	Loader,	33	M.	Elizabeth,		Skull fractured by fall of slate at face of room on butt entry, while knocking down coal with a wedge.

CONDITION OF MINES

WESTMORELAND COAL COMPANY

Criterion.—In good condition as to ventilation and drainage. A water car is used to saturate the coal dust, in the entries, but there is no system for working places. I have been notified by the general superintendent that a watering system will be installed for working places. The only explosive used is Coal Special, and shot firers are employed.

Export No. 1.—General condition good, except that the ventilation in No. 3 split is below the requirements of the law. There is no watering system for saturating the coal dust, but the mine is naturally damp. Explosives used are: Black Powder and Carbonite.

Export No. 2.—General condition good, except that the ventilation in Nos. 5 and 6 splits is below the requirements of the law. There is no watering system for saturating the coal dust, but the mine is naturally damp. Explosives used are: Black Powder and Clay Tamping. There are no safety lamps in use.

Larimer.—Condition good as to ventilation and drainage. The mine is retreating with the pillars and entry stumps and will soon be exhausted.

Westmoreland Shaft.—Condition good as to ventilation and drainage. The mine foreman is required to provide shelter holes in some parts of the mine. The system for saturating the coal dust is by water car, pipe line and hose. Explosives used are: Masurite, Carbonite, Coal Special and Black Powder.

KEYSTONE COAL AND COKE COMPANY

Arona.—The ventilation and drainage were good except that the ventilation in some parts is below the legal requirements of the law. The system for saturating the coal dust is the exhaust steam fan, the fan engine and the mine is also in a naturally damp condition. Explosives used are: Black Powder and Clay Tamping.

Claridge.—Ventilation and drainage were in good condition. Black Powder is used.

Keystone Shaft.—The ventilation and drainage were in good condition generally. The ventilation in No. 5 split, however, should be improved. The system for saturating the coal dust is pipe lines in entry and pipe lines in each room. Explosives used are: Carbonite, Dynamite, Black Powder and Clay Tamping.

Madison.—Ventilation and drainage were in fair condition. The mine is retreating with the pillars and entry stumps.

Sewickley.—The ventilation and drainage were generally in good condition, but shelter holes should be provided in some parts of the mine. The system for saturating the coal dust is by pipe line. Explosives used are: Carbonite, Black Powder and Clay Tamping.

NEW YORK AND CLEVELAND GAS COAL COMPANY

Duquesne.—Ventilation and drainage were in fair condition.

Lyons Run.—The ventilation and drainage were generally in good condition. Explosive used is Black Powder.

Oak Hill No. 3.—The ventilation and drainage were good except in Nos. 5 and 6 splits, where the ventilation is below the requirements of the law. Explosive used is Black Powder.

Oak Hill No. 5.—Ventilation and drainage were in fair condition. Explosive used is Black Powder.

OCEAN COAL COMPANY

Ocean No. 1.—Ventilation and drainage good. The system for saturating the coal dust is by pipe line. Explosives used are: Carbonite, Black Powder and Clay Tamping. Shot firers are employed.

Ocean No. 2.—Ventilation and drainage in good condition generally. The system for saturating the coal dust is by pipe line and by sprinkling with water car on entries or headings, but the rooms are dry and dusty. The general superintendent has notified me that he is going to install pipe system in the rooms.

PENN GAS COAL COMPANY

Penn Gas No. 2.—Ventilation and drainage generally in good condition. The system for saturating the coal dust is by sprinkling with improved water car and steam jet. Explosives used are: Masurite and Clay Tamping. Shot firers are employed.

Penn Gas No. 5.—Ventilation and drainage good. The mine is in a naturally damp condition. Explosives used are: Collier No. 5 and Clay Tamping.

PITTSBURG-WESTMORELAND COAL COMPANY

Penn Manor No. 1.—Ventilation and drainage in good condition. Shelter holes should be provided in some parts of the mine. Explosives used are : Black Powder and Clay Tamping.

Penn Manor No. 5.—The ventilation and drainage were fair, except in No. 1 split, where the ventilation is below the requirements of the law. Explosive used is Black Powder.

PITTSBURG AND BALTIMORE COAL COMPANY

Edna No. 1.—Ventilation and drainage in generally good condition. The system for saturating the coal dust is by sprinkling with a water car. Explosives used are: Carbonite and Clay Tamping.

Edna No. 2.—Ventilation and drainage in good condition generally. The system for saturating the coal dust is by sprinkling with a water car. Explosives used are: Carbonite and Clay Tamping. Shot firers are employed where safety lamps are used.

MANOR GAS COAL COMPANY

Denmark.—Ventilation and drainage in generally good condition. Explosives used are: Mineite, Black Powder and Clay Tamping.

W. B. SKELLY COAL COMPANY

Elizabeth.—Ventilation and drainage in fair condition. Explosives used are: Black Powder and Clay Tamping.

ADAMS GAS COAL COMPANY

Gress.—Ventilation and drainage were in fair condition. Black Powder is used.

UNITED-CONNELLSVILLE COKE COMPANY

Madison.—Ventilation and drainage fair. I requested the Mine Foreman to have the ventilation conducted to the face of the workings, and to discontinue the use of canvas cloth for stoppings between entries. Black Powder is used.

G. VOGELE SONS AND COMPANY

Hampton.—Ventilation and drainage were in fair condition.

WEINMAN BROTHERS

Weinman.—Ventilation and drainage were in fair condition.

STEEL AND SCOTT COMPANY

Ward.—Ventilation and drainage were in fair condition.

DUNN-CONNELLSVILLE COAL AND COKE COMPANY

Little Gem.—Ventilation and drainage were in fair condition. I called the Mine Foreman's attention to the fact that there should be some means of ventilation installed in the mine.

IMPROVEMENTS

KEYSTONE COAL AND COKE COMPANY

Arona.—Built sixty-four stoppings and five overcasts. Also one underground stable built of incombustible material, containing 24 stalls and one box stall, the sides of which are of brick and cement. The stalls are formed of 3-inch pipe for columns and 1½ inch pipe for partitions. The mangers are formed with 1½ inch pipe. The floor is of ash concrete. Planks are laid for mules to stand on, this being the only combustible material in the stable.

The exhaust steam has been turned into the main air course. No sprinkling system has been installed in this mine because it is naturally a damp mine and there is no dust. Water plugs have been installed in the stable.

Claridge.—Built fifty-two brick stoppings and three overcasts of brick and iron. Three hundred Wolf safety lamps and thirty-five Clancy safety lamps have been put in use during the year.

Keystone Shaft.—Built one hundred and one permanent stoppings and eight overcasts. An extension thirty feet long has been built to the pump room; the fan has been made reversible; and one Ingersoll-Rand, low pressure air compressor and one 350 horse power Stirling boiler have been installed. Installed a complete water system throughout the mine for sprinkling purposes and also for protection from fire. This system is put in with 2-inch pipe on the main entries, 1-inch pipe on the butt entries, and ¾-inch pipe in the rooms, with water taps at intervals so that hose can be connected every here and there.

Sewickley.—An underground stable has been built capable of holding 21 head of stock. The stable is built of brick and cement side walls, with 80 pound steed rails, 5 feet apart, to support the roof,

which is also supported with three 3-inch gas pipes. The stalls are partitioned off with 1½-inch gas pipe; the mangers are put in with 1½-inch gas pipe. The floor is being laid with ash concrete and plank put in the stalls for the mules to stand on.

Installed a complete water system throughout the mine for sprinkling purposes and also for protection from fire. This system is put in with 2-inch pipe on the main entries, 1-inch pipe on the butt entries and ¾-inch pipe in the rooms, with water taps at intervals so that hose can be attached.

Installed one Robinson fan, size 20 feet x 7 feet, operated by Clifford engine. This gives the mine an extra fan, which can be used in case anything should happen to the other one.

Installed two 6-ton H. K. Porter, cross compound, compressed air locomotives. These are used for hauling coal in places where mules cannot haul.

A new haulage road has been made, which necessitated 3200 feet of grading to be done. This grading at some places was 14 feet deep. This gives a grade sufficient to carry the wagons by gravity for the entire length of the grade.

The return airway on the Fourth South Section has been enlarged for a distance of 1850 feet. This has increased the area of airways in that point to an average of 90 feet.

NEW YORK AND CLEVELAND GAS COAL COMPANY

Lyons Run.—Erected eight permanent overcasts and twenty-two brick stoppings.

OCEAN COAL COMPANY

Ocean No. 1.—Nine permanent stoppings and two overcasts have been built. A sprinkling system has been installed in the mine, with 2-inch pipe on the face entries and 1-inch pipe on butt entries, with hose to sprinkle rooms. The dust is properly saturated and taken out of the mine.

Ocean No. 2.—An air shaft, 13 x 20 feet and 316 feet deep, has been sunk. Installed one Clifford-Capell fan 18 x 5 feet, driven by 2 cross compound engines, high and low steam pressure, each engine to run fan separately if necessary.

Installed two 150 K. W. generators, direct connected to 19 x 20 McEwen engines 296 horse power each. Erected one 300 horse power Stirling boiler, and installed one Phillips cross-over dump.

An electric haulage system has been installed inside, consisting of 3 Jeffrey haulage locomotives, one 6-ton and two 10-ton machines. Six permanent overcasts and forty permanent stoppings have been built. Water sprinklers have been installed at bottom and pipe line on faces. Water wagons are used and the dust is properly saturated and taken out of the mine. Houses for 45 families have been built.

PITTSBURG AND BALTIMORE COAL COMPANY

Edna No. 1.—Installed one new 100 K. W. generator in the power house and one 25 horse power haulage engine on the slate dump.

The improvements inside consisted of making a return air course from fan to sixth flat, enlarging the two return air courses from sixth flat to fifteenth flat, making a new return air course for twelfth flat through eleventh flat, putting in two overcasts over manway and

slope, enlarging overcast over fifteenth flat from 40 feet area to 70 feet. Built seventy-five 13-inch concrete stoppings and fifty 6-inch concrete stoppings and seven overcasts.

Edna No. 2.—Built one permanent overcast and installed one We-Fu-Go Water Softening plant. Fifty Wolf safety lamps were put in use.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

March 22, Joseph Oravy, a miner in Criterion mine of the Westmoreland Coal Company, took a pipe beyond the station in said mine inside of which locked safety lamps are used. He was arrested, plead guilty, and was sentenced to pay a fine of $5.00 and costs.

In April, Peter Pala, Angelo Bendeno and Lorenzo Armacrete passed a permanent danger signal in the Carbon mine of the Keystone Coal and Coke Company. Two of them were arrested, they plead guilty and were fined $5.00 each and costs. The other one is a fugitive.

In October, Paul Rubick and Mike Tuik used an open light in a safety lamp section of Edna No. 1 mine, operated by the Pittsburg and Baltimore Coal Company. They were arrested, plead guilty and were fined each $10.00 and costs.

October 25, Charles Luyccsak was arrested on oath of J. B. Watson, a fire boss, for tampering with electric wires in Edna No. 2 mine of the Pittsburg and Baltimore Coal Company. Defendant plead guilty and was fined $5.00 and costs.

In October, Paul Ross was arrested for using an open light in a safety lamp section of Denmark mine, Manor Gas Coal Company. He plead guilty and was sentenced to pay a fine of $5.00 and costs.

December 9, John Fisher took matches, pipes and cigarette paper, etc., into the safety lamp section of Criterion mine, operated by the Westmoreland Coal Company. He was arrested, plead guilty and was fined $5.00 and costs.

December 27, Mike Frank, Casper Guseman and William Markus passed a danger signal placed on a travelingway in Edna No. 1 mine of the Pittsburg and Baltimore Coal Company. Defendants are all fugitives.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in the Knights of Pythias Hall, Irwin, April 6, 7, 8 and 9.

The Board of Examiners was composed of William J. Neilson, Mine Inspector, William Bird, Superintendent and John Walters, Mine Foreman. There were one hundred and thirteen applicants examined; thirty-four for certificates as Mine Foremen and seventy-nine for certificates as Fire Boss. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen.

First Grade

Joseph Maize, William S. Batey, George H. Harrison, Edward Bytheway and George B. Curry.

TWENTIETH DISTRICT

SOMERSET COUNTY

Somerset, Pa., February 15, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: In compliance with the requirements of the Bituminous Mining Law, I herewith transmit my annual report for the Twentieth Bituminous District for the year ending December 31, 1909.

I was transferred to this District July 1, 1909, from the Eighteenth District.

The report contains the usual tables and statistics, with a brief description of the mines, an account of the important improvements made during the year, and a report of the annual examination of applicants for mine foremen's certificates.

Respectfully submitted,

NICHOLAS EVANS,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	72
Number of mines in operation,	68
Number of tons of coal shipped to market,	5,400,615
Number of tons used at mines for steam and heat,	123,932
Number of tons sold to local trade and used by employes,	23,738
Number of tons used in the manufacture of coke,	27,359
Number of tons of coal produced,	5,575,644
Number of tons of coke produced,	17,428
Number of coke ovens,	225
Number of coke ovens in operation,	225
Number of tons of coal produced by pick mining,	3,750,731
Number of tons produced by compressed air machines,	943,013
Number of tons produced by electrical machines,	881,900
Number of persons employed inside of mines,	6,211
Number of persons employed outside, including coke workers,	850
Number of persons employed at manufacture of coke,	57
Number of fatal accidents inside of mines,	28
Number of fatal accidents outside,	2
Number of non-fatal accidents inside of mines,	48
Number of non-fatal accidents outside,	2
Number of tons of coal produced per fatal accident inside,	199,130
Number of persons employed per fatal accident inside,	222
Number of persons employed per fatal accident outside,	425
Number of persons employed per non-fatal accident inside,	129
Number of persons employed per non-fatal accident outside,	425
Number of wives made widows,	12
Number of children made orphans,	26
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	1
Number of compressed air locomotives used inside,	1
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	85
Number of electric motors used outside,	
Number of fans in use,	50
Number of furnaces in use,	11
Number of gaseous mines in operation,	4
Number of non-gaseous mines in operation,	64
Number of new mines opened,	———
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Consolidation Coal Company,	1,736,413
Berwind-White Coal Mining Company,	833,300
Jenner-Quemahoning Coal Company,	671,122
Quemahoning Coal Company,	378,600
Brothers Valley Coal Company,	261,165
Merchants Coal Company,	247,068
Meyersdale Coal Company,	228,015
Knickerbocker Smokeless Coal Company,	190,895
Somerset Mining Company,	155,713
Reading Iron Company,	139,129
Atlantic Coal Company,	90,809
Enterprise Coal Company,	68,387
Haws Coal Company,	57,732
Carbo Smokeless Coal Company,	53,103
Somerset and Cambria Coal Company,	52,829
Federal Coal Company,	48,985
Grassy Run Coal Company,	45,234
Hocking Coal Company,	42,122
Randolph Coal Company,	37,083
Keystone Coal Company,	29,391
Coronet Coal Comapny,	28,100
Meyersdale Fuel Company,	26,827
Stoner Coal Company,	26,512
Kenneth Coal Company,	19,304
S. M. Hamilton and Company,	18,791
Pennwood Coal Company,	17,072
W. A. Merrill and Company,	15,106
J. W. Preston,	15,019
Pittsburg Cambria Coal Company,	12,552
Fred Rowe,	12,182
Boynton Coal Company,	5,150
Savage Fire Brick Company,	4,800
Cumberland Basin Coal Company,	2,583
Cochran Coal Company,	2,280
Fisher Smokeless Coal Company,	2,271
Total,	5,575,644

Production by Counties

Somerset,	5,575,644

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Consolidation Coal Co.,	1	1	2	16	2	18	1,736,413	108,526	1,883	258	2,141	1,883	258	118	129
Berwind-White Coal Mining Co.,	5		5	11		11	166,660	75,755	1,046	125	1,171	209		95	
Jenner-Quemahoning Coal Co.,	7		7	4		4	95,875	167,781	463	98	561	66		116	
Quemahoning Coal Co.,		1	1						338	32	370		32		
Brothers Valley Coal Co.,	2		2	1		1	130,583	261,165	322	44	366	161		322	
Merchants Coal Co.,	8		8	2		2	30,884	123,534	360	49	409	45		180	
Meyersdale Coal Co.,				7		7		32,574	197	20	217			28	
Knickerbocker Smokeless Coal Co.,	1		1	3		3	190,895	63,632	154	16	170	154		51	
Reading Iron Co.,	1		1	1		1	139,129	139,129	106	28	134	106		106	
Atlantic Coal Co.,	1		1	1		1	90,809	90,809	91	11	102	91		91	
Enterprise Coal Co.,	1		1				68,387		70	8	78	70			
Somerset and Cambria Coal Co.,				1		1		52,829	73	9	82			73	
Grassy Run Coal Co.,				1		1		45,234	71	7	78			71	
Coronet Coal Co.,	1		1				28,100		58	7	65	58			
Miscellaneous Companies,									979	138	1,117				
Totals and averages for district,	28	2	30	48	2	50	1,991,130	116,159	6,211	850	7,061	222	425	129	425

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	----	----	1	----	1	----	----	----	----	----	1	4	14.29
Falls of slate,	----	1	3	----	1	----	----	----	----	----	----	----	5	17.86
Falls of roof,	----	----	----	----	----	----	1	1	----	----	----	----	2	7.15
Mine cars,	----	----	----	1	1	1	----	----	----	----	----	----	3	10.71
Explosions of gas and dust,	5	----	----	----	----	----	----	----	----	----	----	----	5	17.86
Falling into shafts,	1	----	----	----	----	----	----	1	----	----	----	1	3	10.71
Electricity,	----	----	1	----	----	----	1	----	1	----	----	----	3	10.71
Miscellaneous,	1	2	----	----	----	----	----	----	----	----	----	----	3	10.71
Totals,	8	3	4	2	2	2	2	2	1	----	----	2	28	100.00
Causes of Accidents Outside														
Cars,	----	----	----	----	----	----	----	----	1	1	----	----	2	100.00
Totals,	----	----	----	----	----	----	----	----	1	1	----	----	2	100.00
Grand totals inside and outside,	8	3	4	2	2	2	2	2	2	1	----	2	30	--------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	2	2	1	----	1	-	----	----	----	1	3	----	11	22.92
Falls of slate,	----	2	1	----	----	----	4	2	----	1	----	1	11	22.92
Falls of roof,	----	----	1	1	1	----	1	----	----	----	1	1	6	12.50
Mine cars,	----	----	----	2	2	1	1	2	----	1	1	2	12	25.00
Explosions of gas and dust,	----	----	----	----	----	----	----	----	1	----	----	----	1	2.08
Explosions of powder and dynamite,	----	----	----	----	2	----	----	----	----	----	----	----	2	4.17
Mules,	----	----	----	----	----	----	----	1	----	----	----	----	1	2.08
Miscellaneous,	----	----	1	----	1	1	----	----	----	1	----	----	4	8.33
Totals,	2	4	4	3	7	3	6	5	1	4	5	4	48	100.00
Causes of Accidents Outside														
Cars,	----	----	1	----	----	----	----	----	----	----	1	----	2	100.00
Totals,	----	----	1	----	----	----	----	----	----	----	1	----	2	100.00
Grand totals inside and outside,	2	4	5	3	7	3	6	5	1	4	6	4	50	--------

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Superintendents,	1												1
Assistant superintendents,	1												1
Mine foremen,	1												1
Miners,	5	1	3	1	2	1	1	1	1			1	17
Machine runners,		1											1
Machine loaders,							1						1
Machine scrapers,		1											1
Tripriders,						1							1
Laborers,								1					1
Roadmen,				1									1
Pipemen,			1										1
Trackcleaners,												1	1
Totals,	8	3	4	2	2	2	2	2	1			2	28
Outside													
Roperiders,									1				1
Motormen,										1			1
Totals,									1	1			2
Grand totals inside and outside,	8	3	4	2	2	2	2	2	2	1		2	30

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,				1		1							2
Miners,	1	4	4	2	5	1	4	4	1	3	4	2	35
Machine loaders,	1												1
Machine scrapers,							1						1
Drivers and runners,					1	1					1		3
Rockmen,										1			1
Timbermen,					1								1
Motormen,							1						1
Brakemen,												1	1
Electricians,								1					1
Spraggers,												1	1
Totals,	2	4	4	3	7	3	6	5	1	4	5	4	48
Outside													
Laborers,											1		1
Spraggers,			1										1
Totals,			1								1		2
Grand totals inside and outside,	2	4	5	3	7	3	6	5	1	4	6	4	50

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	5	----	1	1	----	----	----	----	----	1	----	----	8
English,	----	----	1	----	1	----	----	----	----	----	----	----	2
Scotch,	----	----	----	----	----	----	----	----	1	----	----	----	1
German,	2	----	----	----	----	----	----	----	----	----	----	----	2
Polish,	----	----	1	----	1	1	1	----	----	----	----	----	4
Italian,	----	1	1	----	----	1	----	2	----	----	----	1	6
Slavonian,	----	1	----	1	----	----	1	----	1	----	----	1	5
Lithuanian,	----	1	----	----	----	----	----	----	----	----	----	----	1
Austrian,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	8	3	4	2	2	2	2	2	2	1	----	2	30

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	1	2	1	----	1	1	2	----	----	2	1	12
English,	----	----	----	----	1	----	1	----	----	----	----	----	2
Scotch,	----	----	----	----	----	1	----	----	----	----	----	----	1
German,	----	----	----	----	----	----	----	----	1	----	----	----	1
Polish,	1	----	1	----	----	----	1	2	----	1	----	----	6
Italian,	----	1	1	1	3	----	----	1	----	1	1	----	9
Slavonian,	----	2	----	----	3	1	3	----	----	1	3	2	15
Lithuanian,	----	----	1	----	----	----	----	----	----	----	----	----	1
Austrian,	----	----	----	----	----	----	----	----	----	1	----	----	1
Russian,	----	----	----	1	----	----	----	----	----	----	----	----	1
Coalion,	----	----	----	----	----	----	----	----	----	----	----	1	1
Totals,	2	4	5	3	7	3	6	5	1	4	6	4	50

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Consolidation Coal Co.																
Jenner No. 1,	Slope,	Non-gas.	Fan,	16	4	4	87	1.1	Brazil,	Steam,		2	45,360	40,449	47,309	85
Jenner No. 2,	Drift,		Fan,	16	6	4.6	97	1.3	Capell,	Steam,		8	68,440	66,910	72,890	316
Jenner No. 3,	Slope,		†									2	34,560	32,220	36,160	114
Jenner Nos. 4 and 5,	Drifts,		Fan,	20	7	5	42		Lepley,	Steam,		2	66,300	47,600	67,960	104
Stuart,	Drift,		Fan,	14	4	4	40	.3	Brazil,	Steam,			24,000	23,000	25,300	20
Listie,	Drift,		Fan,	12	4	3	90	.6	Brazil,	Steam,		5	79,065	66,318	80,560	114
Wilson Creek,	Drift,		Fan,	12	4	3	88	.5	Brazil,	Steam,		2	44,100	20,500	44,500	92
Pine Hill No. 1,	Drift,		Fan,	12	3.8	3.2	110	.5	Brazil,	Electricity,		4	32,600	32,510	37,580	204
Allegheny,	Slope,		Fan,	14	5.2	5			Brazil,	Steam,			Idle.			
Casselman No. 2,	Drift,		Fan,	7.6	1.3	3.1	300	.6	Stine,	Electricity,			20,500	13,200	22,500	60
Summit Nos. 1 and 2,	Drifts,		Furnace,								120	7	51,300	42,600	61,000	225
Thomas,	Drift,		Natural,													
Elk Lick No. 1,	Drift,		Furnace,	18	5	4.2	80	.8	Kenney,	Steam,	50					
			Two fans,	7	1.3	2.8	350	.3	Stine,	Electricity,		7	86,312	73,900	92,150	362
Elk Lick No. 2,	Drift,		Fan,	7	1.3	2.8	300	.3	Stine,	Electricity,		2	18,700	21,000	25,600	90
Elk Lick No. 3,	Drift,		‡									2	15,312	13,300	17,000	63
Hamilton,	Drift,		Fan,	10	3	3.1	42	.2	Brazil,	Steam,			17,200	15,750	17,750	29

†Same as No. 2.
‡From Elk Lick No. 1.

Berwind-White Coal Mining Co.																	
Eureka No. 30,	Drift,	Non-gas.	Fan,	12	10	4.3	184	.3	Capell,	Electricity,		12	77,300	77,300	100,000	311
Eureka No. 31,	Drift,		Two fans,	7.3	4	2.5	300	.7	Sturdevant,	Electricity,			12,690	33,000	33,250	367
				8	1.5	3.3	420	.5	Stine,							
Eureka No. 39, Upper,	Drift,		Fan,	16	6.1	7	120	1.6	Capell,	Electricity,		20	84,574	40,000 44,575	86,475	368
Jenner-Quemahoning Coal Co.																
Jerome Shaft No. 1,	Shaft,	Gaseous,	Fan,	20	8	4.5	95	1.7	Capell,	Steam,		10	129,000	106,000	129,800	306
Jerome Shaft No. 2,	Shaft,	Gaseous,											110,000	102,000	115,195	157
Quemahoning Coal Co.																
Ralphton No. 1,	Slope,	Non-gas.	Fan,	20	6	4	90	1.2	Brazil,	Steam,		3	55,000	40,000	56,600	119
Ralphton No. 2,	Drift,		Furnace,								36	2	10,000	6,000	11,200	11
Ralphton No. 3,*	Slope,		Fan,									4	35,000	28,000	40,000	133
Ralphton No. 4,	Drift,		Fan,	4	3	1.5	600	1	Robinson,	Electricity,		1	32,000	20,000	34,000	75
Brothers Valley Coal Co.																
Pen Mar No. 2,	Shaft,	Non-gas.,	Fan,	16	8	7	85	1.4	Robinson,	Steam,		4	91,616	91,482	93,400	193
Pen Mar No. 3,	Slope,	Non-gas.,	Fan,	16	8	7	72	1.1	Robinson,	Steam,		2	78,000	60,000	79,000	129
Merchants Coal Co.																
Orenda No. 2,	Slope,	Gaseous,	Fan,	16	6.5	3.3	138	.3	Robinson,	Electricity,		5	137,000	97,000	148,000	258
Merchants No. 3,	Drift,	Non-gas.,	Two fans,	1.7	2	2.6	300	.2	Stine,	Electricity,			32,000	32,000	32,100	110
				2.3	1		575	.2								
Meyersdale Coal Co.																
Stauffer No. 1,	Drift,	Non-gas.,	Fan,	12	3.8	4	78	.5	Brazil,	Steam,		5	39,750	38,860	42,650	141
Stauffer No. 2,	Drift,	Non-gas.,	Fan,	16	4.5	4.5	70	.8	Brazil,	Steam,		2	22,150	21,500	24,000	53
Knickerbocker Smokeless Coal Co.																
Knickerbocker No. 2,	Drift,	Non-gas.,	Two fans,	12	3.8	3.3	120		Brazil,	Steam,		2	33,000	20,000	34,000	94
				3	2.5		525	.9	Robinson,	Electricity,						
Knickerbocker No. 3,	Drift,	Non-gas.,	Fan,	10	3	2.6	90	.6	Brazil,	Steam,			22,000	12,500	24,000	60
Somerset Mining Co.																
Knickerbocker No. 1,	Drift,	Non-gas.,	Fan,	12	3.6	3.2	125	.6	Brazil,	Steam,		3	44,000	35,000	45,500	122
Reading Iron Co.																
Reading No. 3,	Drift,	Non-gas.,	Fan,	16	4.5	4.7	72	.2	Guibal,	Steam,		2	40,845	32,000	44,950	46
Reading No. 4,	Drift,	Non-gas.,											33,237	25,202	34,190	60
Atlantic Coal Co.																
Atlantic,	Slope,	Non-gas.,	Fan,	10	4	2.5	100	.1	Brazil,	Steam,			24,000	14,000	24,600	91

*Ventilated by fan at No. 1 mine.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Enterprise Coal Co.																
Ponfeigh,	Drift,	Non-gas.,	Fan,	12	3.8	3.4	90	.6	Brazil,	Steam,			24,000	14,800	26,500	70
Haws Coal Co.																
Lenore Shaft,	Shaft,	Gaseous,	Fan,	16	6	6	66	.7	Vulcan,	Steam,		1	33,000	33,000	35,000	57
Oneida Slope,	Slope,	Non-gas.,	Fan,	12	4	4	45	.3	Cole,	Steam,		1	16,000	16,000	18,000	34
Carbo Smokeless Coal Co.																
Bethel No. 2,	Drift,	Non-gas.,	Furnace,								20	2	12,400	12,250	15,750	55
Bethel No. 3,	Slope,	Non-gas.,	Fan,	7	2.5	.3	90	.2	Stine,	Steam,			16,200	16,200	18,800	34
Somerset and Cambria Coal Co.																
S. and C. No. 1,	Drift,	Non-gas.,	Fan,	7	2	3	230	.6	Stine,	Steam,		3	30,000	18,000	33,000	73
Federal Coal Co.																
Federal No. 1,	Drift,	Non-gas.,	Furnace,								10		7,375	7,375	7,575	64
Federal No. 3,	Slope,	Non-gas.,	Fan,	10	1.6	2.5	200	.3	Stine,	Steam,			15,600	14,600	16,000	39
Grassy Run Coal Co.																
Grassy Run No. 1,	Drift,	Non-gas.,	Furnace,								36	2	47,000	47,000	66,000	41
Grassy Run No. 2,	Drift,	Non-gas.,														30
Hocking Coal Co.																
Hocking No. 2,	Slope,	Non-gas.,	Fan,	20	7	5.5	48	.2	Brazil,	Steam,			40,000	22,000	43,000	101

Randolph Coal Co.																
Randolph,	Drift,	Non-gas.,	Furnace,								48		14,000	14,500	14,500	53
Keystone Coal Co.																
Glen McClaren,	Drift,	Non-gas.,	Fan,	12	2	2.5	62	.2	Brazil,	Steam,			14,000	5,000	14,000	68
Coronet Coal Co.																
Standard No. 3,	Drift,	Non-gas.,	Fan,	12	3	3	60	.5	Brazil,	Steam,			30,000	20,000	32,000	58
Meyersdale Fuel Co.																
Yoder,	Drift,	Non-gas.,	Furnace,								30	2	4,800	12,800	14,000	25
Stoner Coal Co.																
Stoner No. 1,	Drift,	Non-gas.,	Natural,										2,000	2,000	2,400	9
Stoner No. 2,	Drift,	Non-gas.,	Fan,	4	1.8	1.5	200		Stine,	Gasoline,			4,500	4,500	4,900	20
Kenneth Coal Co.																
Kenneth,	Drift,	Non-gas.,	Fan,	10	3	2.5	66	.2	Brazil,	Steam,		2	15,000	12,000	16,000	31
S. M. Hamilton and Co.																
Adams,	Drift,	Non-gas.,	Fan,	12	4	3	76		Cole,	Steam,			21,250	10,000	25,920	52
Pennwood Coal Co.																
Pennwood,	Drift,	Non-gas.,	Fan,	12	4.5	4.8	96	.2	Brazil,	Electricity,			30,000	16,000	33,000	27
W. A. Merrill and Co.																
Enterprise,	Drift,	Non-gas.,	Fan,	12	2	3	65		Brazil,	Steam,			17,500	9,400	19,500	20
J. W. Preston																
Franklin No. 2,	Drift,	Non-gas.,	Fan,	10	3.5	3	60		Brazil,	Steam,			7,000	3,000	8,000	9
Franklin No. 3,	Slope,	Non-gas.,	Fan,	5	4	1.5	160		Robinson,	Steam,			20,000	15,300	21,200	20
Pittsburg Cambria Coal Co.																
Morro No. 1,	Drift,	Non-gas.,	Fan,	10	4	2	75	.2	Brazil,	Steam,			14,000	6,800	14,000	43
Morro No. 2,	Slope,	Non-gas.,	Furnace,								20		2,000	1,400	1,900	15
Fred Rowe																
Mystic,	Drift,	Non-gas.,	Natural,										7,400	3,000	7,800	9
Boynton Coal Co.																
Flog Hill,	Drift,	Non-gas.,	Furnace,								24		4,700	2,400	4,900	8
Savage Fire Brick Co.																
Glade City,	Drift,	Non-gas.,	Natural,													8
Cumberland Basin Coal Co.																
Cook,	Drift,	Non-gas.,	Furnace,								20	2	15,000	9,000	16,740	29

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Cochran Coal Co. Cochran,	Drift,	Non-gas.,	Natural,													6
Fisher Smokeless Coal Co. Neva.	Slope,	Non-gas.,	Natural,										10,800	6,320	11,200	21

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Consolidation Coal Co.,	Jenner No. 1,	Slope,	Non-gas.	8	Electricity,	C Prime or Cement,	46	50	42	75,764
	Jenner No. 2,	Drift,		28			48	48	48	117,647
	Jenner No. 3,	Slope,					53	58	48	
	Jenner Nos. 4 and 5,	Drift,		6			46	48	44	30,268
Totals,				42						223,679
Berwind-White Coal Mining Co.,	Eureka No. 30,	Drifts,	Non-gas.	20	Compressed Air,	B or Miller,	48	54	42	216,155
	Eureka No. 31,			35	Compressed Air,	B or Miller,	48	54	42	278,525
	Eureka No. 39, Upper,			25	Compressed Air and Electricity,	C Prime or Cement,	68	60	72	298,620
Totals,				80						793,300
Jenner-Quemahoning Coal Co.,	Jerome Shaft No. 1,	Shaft,	Gaseous,	14	Electricity,	C Prime or Cement,	69	72	60	308,573
	Jerome Shaft No. 2,	Shaft,	Gaseous,	5			69	72	60	154,286
Totals,				19						462,859

TABLE J—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Brothers Valley Coal Co.,	Pen Mar No. 2,	Shaft,	Non-gas.,	33	Compressed Air,	B or Miller,	56	60	36	88,315
	Pen Mar No. 3,	Slope,	Non-gas.,	31			54	60	36	59,438
Totals,				64						147,753
Merchants Coal Co.,	Orenda No. 2,	Slope,	Gaseous,	41	Electricity and Compressed Air,	C Prime or Cement,	66	74	58	55,362
	Merchants No. 3,	Drift,	Non-gas.,	3	Electricity,	Pittsburg,	72	96	48	40,000
Totals,				44						95,362
Reading Iron Co.,	Reading No. 3,	Slope,	Non-gas.,	12	Electricity and Compressed Air,	C Prime or Cement,	36	38	32	46,376
	Reading No. 4,	Drift,	Non-gas.,	15		E or Freeport,	38	40	33	55,584
Totals,				27						101,960
Grand totals,				276						1,824,913

TABLE 1.—Operators, Location of Mines, Railroads, Etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Consolidation Coal Co.						
Jenner Nos. 1, 2, 3, 4 and 5,				F. F. Lyon,	Jenner,	
Stuart,				G. M. Gillette,	Somerset,	
Listie,				G. M. Gillette,	Somerset,	
Wilson Creek,				G. M. Gillette,	Somerset,	
Pine Hill No. 1,				C. W. Hoffa,	Pine Hill,	
Allegheny,	Somerset,	F. R. Lyon,	Somerset,	Samuel Steinbach,	Somerset,	B. and O.
Casselman No. 2,				Samuel Steinbach,	Somerset,	
Summit Nos. 1 and 2,				A. G. Smith,	Meyersdale,	
Thomas,				A. G. Smith,	Meyersdale,	
Elk Lick Nos. 1, 2, 3,				A. G. Smith,	Meyersdale,	
Hamilton,				A. G. Smith,	Meyersdale,	
Berwind-White Coal Mining Co.						
Eureka Nos. 30, 31, 39, Upper,	Somerset,	Thomas Fisher,	Philadelphia,	W. R. Calverly,	Windber,	Pennsylvania
Jenner-Quemahoning Coal Co.						
Jerome Shaft Nos. 1 and 2,	Somerset,	J. D. O'Neil,	Pittsburg,	W. E. Henderson,	Jerome,	B. and O.
Quemahoning Coal Co.						
Ralphton Nos. 1, 2, 3, 4,	Somerset,	D. B. Zimmerman,	Somerset,	C. M. Woy,	Ralphton,	B. and O.
Brothers Valley Coal Co.						
Pen Mar Nos. 2 and 3,	Somerset,			Philip A. Shaffer,	Macdonaldton,	B. and O.
Merchants Coal Co.						
Orenda No. 2,	Somerset,	J. D. O'Neil,	Pittsburg,	E. L. Morris,	Boswell,	B. and O.
Merchants No. 3,				George R. Will,	Meyersdale,	
Meyersdale Coal Co.						
Stauffer Nos. 1 and 2,	Somerset,	W. T. Hoblitzell,	Meyersdale,	James H. Scurfield,	Wells Creek,	B. and O.
Knickerbocker Smokeless Coal Co.						
Knickerbocker Nos. 2 and 3,	Somerset,	Telford Lewis,	Hooversville,	Norman Lewis,	Hooversville,	B. and O.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Somerset Mining Co. Knickerbocker No. 1,	Somerset,	Telford Lewis,	Hooversville,	Norman Lewis,	Hooversville,	B. and O.
Reading Iron Co. Reading Nos. 3 and 4,	Somerset,	George J. Krebs,	Somerset,			B. and O.
Atlantic Coal Co. Atlantic,	Somerset,	F. B. Black,	Meyersdale,	J. M. Black,	Boswell,	B. and O.
Enterprise Coal Co. Ponfeigh,	Somerset,	W. A. Merrill,	Garrett,	J. B. Walker,	Garrett,	B. and O.
Haws Coal Co. Lenore Shaft, Oneida Slope,	Somerset,	W. D. McCauslin,	Hollsopple,	W. D. McCauslin,	Hollsopple,	B. and O.
Carbo-Smokeless Coal Co. Bethel Nos. 2 and 3,	Somerset,	M. H. Meyers,	Johnstown,	H. C. Morgan, T. D. Morgan,	Hollsopple,	B. and O.
Somerset and Cambria Coal Co. Somerset and Cambria No. 1,	Somerset,	H. F. Grazier,	Johnstown,	David Clements,	Hollsopple,	B. and O.
Federal Coal Co. Federal Nos. 1 and 3,	Somerset,			George Charlton,	Hooversville,	B. and O.
Grassy Run Coal Co. Grassy Run Nos. 1 and 2,	Somerset,	John Meager,	Elk Lick,	Howard Meager,	Elk Lick,	B. and O.
Hocking Coal Co. Hocking No. 2,	Somerset,	William G. Hocking,	Meyersdale,	J. Covell Parsons,	Meyersdale,	B. and O.
Randolph Coal Co. Randolph,	Somerset,	H. C. Siebl,	Meyersdale,	H. C. Siebl,	Meyersdale,	B. and O.
Keystone Coal Co. Keystone No. 2, Glen McClaren,	Somerset,	E. J. Weld,	Meyersdale,	Andrew Spence,	Meyersdale,	B. and O.

Coronet Coal Co. Standard No. 3,	Somerset,	H. E. Gray,	Berlin,	H. E. Gray,	Berlin,	B. and O.
Meyersdale Fuel Co. Yoder,	Somerset,	E. O. L. Stotter,	Meyersdale,	E. O. L. Stotter,	Meyersdale,	B. and O.
Stoner Coal Co. Stoner Nos. 1 and 2,	Somerset,	John O. Stoner,	Berlin,	H. K. Stoner,	Berlin,	B. and O.
Kenneth Coal Co. Kenneth,	Somerset,	H. A. Nelson,	Beaver,	Fred Werneberg,	Garrett,	B. and O.
S. M. Hamilton and Co. Adams,	Somerset,			George S. Hoover,	Wells Creek,	B. and O.
Pennwood Coal Co. Pennwood No. 1,	Somerset,	Charles H. Wolfensberger,	Rockwood,			B. and O.
W. A. Merrill and Co. Enterprise,	Somerset,	W. A. Merrill,	Garrett,	M. J. Romesburg,	Garrett,	B. and O.
J. W. Preston Franklin Nos. 2 and 3,	Somerset,	J. W. Preston,	Hollsopple,	J. C. Trevorrow,	Hollsopple,	B. and O.
Pittsburg Cambria Coal Co. Morro Nos. 1 and 2,	Somerset,	J. W. Christy,	Rockwood,	J. W. Christy,	Rockwood,	B. and O.
Fred Rowe Mystic,	Somerset,	Fred Rowe,	Meyersdale,			B. and O.
Boynton Coal Co. Flog Hill,	Somerset,	M. A. Maust,	Elk Lick,			B. and O.
Savage Fire Brick Co. Glade City,	Somerset,	W. H. Hill,	Hyndman,			B. and O.
Cumberland Basin Coal Co. Cook,	Somerset,	A. Bathgate,	Rosebud,	D. R. Lamb,	Barrellville, Md.,	C. and P.
Cochran Coal Co. Cochran,	Somerset,	W. P. Cochran,	Garrett,			B. and O.
Fisher Smokeless Coal Co. Neva,	Somerset,	E. F. Fisher,	Somerset,			B. and O.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Consolidation Coal Co.																
Jenner No. 1,	Somerset,	120,783	2,100	206	.....	123,089	.....	.....	211	96	.....	.....	34,975	475	.....	.....
Jenner No. 2,		329,272	.....	1,564	.....	330,836	.....	.....	218	355	.....	1	84,640	3,450	200	.....
Jenner No. 3,		80,218	5,823	317	.....	86,358	.....	.....	216	126	1	2	13,035	8,575	.....	4
Jenner Nos. 4 and 5,		95,722	129	407	.....	96,258	.....	.....	227	119	.....	.....	22,675	1,500	.....	.....
Stuart,		25,538	1,734	87	.....	27,359	.....	.....	223	24	.....	1	5,850	.....	.....	.....
Listie,		84,711	1,291	506	.....	86,508	.....	.....	179	130	.....	2	11,750	.....	.....	12
Wilson Creek,		86,588	845	587	.....	88,020	.....	.....	194	103	.....	.....	41,250	1,750	.....	14
Pine Hill No. 1,		165,225	2,111	685	.....	168,021	.....	.....	233	219	.....	1	36,175	800	.....	17
Allegheny,		.....	448	.....	.....	448	.....	.....	.....	2	.....	.....	.....	.....	.....	.....
Casselman No. 2,		51,832	1,516	328	.....	53,676	.....	.....	336	68	.....	.....	26,250	.....	.....	9
Summit Nos. 1 and 2,		185,388	.....	.....	.....	185,388	.....	30	169	239	.....	4	65,490	255	.....	23
Thomas,		2,099	.....	.....	.....	2,099	.....	.....	105	4	.....	.....	.....	.....	.....	1
Elk Lick No. 1,		271,604	.....	2,915	27,359	301,878	17,428	195	200	460	1	7	107,090	550	.....	26
Elk Lick No. 2,		68,211	.....	139	.....	68,350	.....	.....	176	97	.....	.....	24,070	140	.....	16
Elk Lick No. 3,		66,989	3,475	2	.....	70,466	.....	.....	200	67	.....	.....	35,400	55	.....	.....
Hamilton,		47,554	105	.....	.....	47,659	.....	.....	208	32	.....	.....	6,300	.....	.....	3
Totals,		1,681,734	19,577	7,743	27,359	1,736,413	17,428	225	.....	2,141	2	18	514,950	17,550	200	125
Berwind-White Coal Mining Co.																
Eureka No. 30,	Somerset,	250,539	5,616	.....	.....	256,155	.....	.....	275	346	2	4	60,000	3,650	.....	.....
Eureka No. 31,		272,788	5,737	.....	.....	278,525	.....	.....	269	400	3	7	37,000	2,100	.....	.....
Eureka No. 39, Upper,		287,757	9,831	1,032	.....	298,620	.....	.....	283	425	.....	.....	60,000	2,150	.....	.....
Totals,		811,084	21,184	1,032	.....	833,300	.....	.....	.....	1,171	5	11	157,000	7,900	.....	.....

Jenner-Quemahoning Coal Co.																
Jerome Shaft No. 1,	Somerset,	478,169	11,826	1,913		491,908			256	376	6	3			35,635	24
Jerome Shaft No. 2,		179,214				179,214			263	185	1	1			17,816	10
Totals,		657,383	11,826	1,913		671,122				561	7	4			53,451	34
Quemahoning Coal Co.																
Ralphton No. 1,	Somerset,	130,000	3,000	450		133,450			270	135			66,000	500		
Ralphton No. 2,		10,000	100	50		10,150			125	12			5,000	50		
Ralphton No. 3,		125,000				125,000			238	142	1		60,000	300		
Ralphton No. 4,		110,000				110,000			278	81			52,000	100		
Totals,		375,000	3,100	500		378,600				370	1		183,000	950		
Brothers Valley Coal Co.																
Pen Mar No. 2,	Somerset,	172,773	13,886	333		186,992			222	218	2	1	28,600	1,600		8
Pen Mar No. 3,		63,928	9,511	734		74,173			242	148			12,500	500		2
Totals,		236,701	23,397	1,067		261,165				366	2	1	41,100	2,100		10
Merchants Coal Co.																
Orenda No. 2,	Somerset,	166,714	16,373	1,220		184,307			245	298	8	2			12,150	24
Merchants No. 3,		61,209	1,446	106		62,761			117	111			15,000			12
Totals,		227,923	17,819	1,326		247,068				409	8	2	15,000		12,150	36
Meyersdale Coal Co.																
Stauffer No. 1,	Somerset,	122,344	877	288		123,509			242	156		6	24,250	1,500		14
Stauffer No. 2,		103,712	631	163		104,506			306	61		1	19,375	1,800		15
Totals,		226,056	1,508	451		228,015				217		7	43,625	3,300		29
Knickerbocker Smokeless Coal Co.																
Knickerbocker No. 2,	Somerset,	127,686	96			127,782			215	103	1	3	23,000	575		
Knickerbocker No. 3,		63,017	96			63,113			214	67			11,000	275		6
Totals,		190,703	192			190,895				170	1	3	34,000	850		6
Somerset Mining Co.																
Knickerbocker No. 1,	Somerset,	154,569	1,144			155,713			214	134			26,000	975		
Reading Iron Co.																
Reading No. 3,	Somerset,	79,894	3,485	166		83,545			235	67	1	1	342	1,000		
Reading No. 4,		53,262	2,322			55,584			235	67			517	323		
Totals,		133,156	5,807	166		139,129				134	1	1	859	1,323		

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Atlantic Coal Co.																
Atlantic,	Somerset,	87,676	3,020	113	--------	90,809	--------	------	274	102	1	1	31,500	12,000	--------	9
Enterprise Coal Co.																
Ponfeigh,	Somerset,	66,687	1,200	500	--------	68,387	--------	------	190	78	1	----	47,075	--------	--------	------
Haws Coal Co.																
Lenore Shaft,	Somerset,	27,283	4,945	140	--------	32,368	--------	------	226	66	----	----	3,900	200	1,900	8
Oneida Slope,		25,364	--------	--------	--------	25,364	--------	------	162	39	----	----	3,350	--------	1,400	3
Totals,		52,647	4,945	140	--------	57,732	--------	------	------	105	----	----	7,250	200	3,300	11
Carbo-Smokeless Coal Co.																
Bethel No. 2,	Somerset,	35,065	300	25	--------	35,390	--------	------	242	61	----	----	40,000	1,250	--------	6
Bethel No. 3,		17,533	180	--------	--------	17,713	--------	------	242	37	----	----	20,000	--------	--------	3
Totals,		52,598	480	25	--------	53,103	--------	------	------	98	----	----	60,000	1,250	--------	9
Somerset and Cambria Coal Co.																
S. and C. No. 1,	Somerset,	52,412	365	52	--------	52,829	--------	------	183	82	----	1	18,750	1,800	--------	7
Federal Coal Co.																
Federal No. 1,	Somerset,	32,295	72	--------	--------	32,367	--------	------	224	64	----	----	11,250	500	--------	7
Federal No. 3,		15,898	720	--------	--------	16,618	--------	------	197	39	----	----	5,625	300	--------	2
Totals,		48,193	792	--------	--------	48,985	--------	------	------	103	----	----	16,875	800	--------	9

Grassy Run Coal Co.																
Grassy Run No. 1,	Somerset,	30,059	100	75		30,234			142	45		1	10,000			4
Grassy Run No. 2,		15,000				15,000			142	33			5,240			3
Totals,		45,059	100	75		45,234				78		1	15,240			7
Hocking Coal Co.																
Hocking No. 2,	Somerset,	38,747	3,375			42,122			175	134			16,125	700		
Randolph Coal Co.																
Randolph,	Somerset,	37,083				37,083			210	56			13,125			4
Keystone Coal Co.																
Keystone No. 2,	Somerset,	28,647	744			29,391			187	75						7
Glen McClaren,																
Coronet Coal Co.																
Standard No. 3,	Somerset,	28,000	100			28,100			252	65	1		20,160	300		5
Meyersdale Fuel Co.																
Yoder,	Somerset,	26,827				26,827			174	27			15,100			5
Stoner Coal Co.																
Stoner No. 1,	Somerset,	7,996		531		8,527			248	10						1
Stoner No. 2,		17,985				17,985			248	22						2
Totals,		25,981		531		26,512				32						3
Kenneth Coal Co.																
Kenneth,	Somerset,	19,084	100	120		19,304			112	38			11,250	200		3
S. M. Hamilton and Co.																
Adams,	Somerset,	17,949	554	288		18,791			87	59			1,575	458		9
Pennwood Coal Co.																
Pennwood,	Somerset,	16,435	637			17,072			213	36			6,000	300		2
W. A. Merrill and Co.																
Enterprise,	Somerset,	14,956	100	50		15,106			187	23			9,275			3
J. W. Preston																
Franklin No. 2,	Somerset,	911				911			84	8						1
Franklin No. 3,		12,507	1,601			14,108			201	28			6,575			1
Totals,		13,418	1,601			15,019				36			6,575			2

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Pittsburg Cambria Coal Co.																
Morro No. 1,	Somerset,	8,208	160			8,368			182	46			4,125			2
Morro No. 2,		4,184				4,184			182	17						1
Totals,		12,392	160			12,552				63			4,125			3
Fred Rowe																
Mystic,	Somerset,	12,057		125		12,182			190	10						1
Boynton Coal Co.																
Flog Hill,	Somerset,	2,750		2,400		5,150			163	9			3,200			3
Savage Fire Brick Co.																
Glade City,	Somerset,			4,800		4,800			240	10			1,500			1
Cumberland Basin Coal Co.																
Cook,	Somerset,	2,348	30	205		2,583			57	34						3
Cochran Coal Co.																
Cochran,	Somerset,	2,200		80		2,280			240	7			2,120	30		1
Fisher Smokeless Coal Co.																
Neva,	Somerset,	2,160	75	36		2,271			44	28			1,000	250		1
Grand totals,		5,400,615	123,932	23,738	27,359	5,575,644	17,428	225		7,061	30	50	1,323,354	53,236	69,101	348

TABLE 2.—Part 2.

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Consolidation Coal Co.,	Somerset,			27	4,690	4,690			23	29	3,933	10	2,302	1,860	11	4
Berwind-White Coal Mining Co.,				3	750	750			15	2	1,000	11	1,090	1,090		
Jenner-Quemahoning Coal Co.,				8	1,200	1,200			11	5	2,282	2	1,400	600	5	
Quemahoning Coal Co.,				4	500	500			6	4	500	3	1,000	1,000	2	
Brothers Valley Coal Co.,		10	1,300	3	900	2,200		1	6	5	1,850	5	1,700	800	2	7
Merchants Coal Co.,		2	300	6	2,100	2,400			8	16	2,800	4	2,178	1,275	5	2
Meyersdale Coal Co.,				3	260	260				4	120	1	160	100		
Knickerbocker Smokeless Coal Co.,				2	110	110			2	2	22					
Somerset Mining Co.,				2	300	300			2	2	256				2	
Reading Iron Co.,				2	787	787			5	8	1,200	2	335	200	2	2
Atlantic Coal Co.,		5	500			500				3	150	1	1,200	500		
Enterprise Coal Co.,				2	250	250			3	2	285				1	
Haws Coal Co.,				4	600	600				5	600	3	575	400		1
Carbo Smokeless Coal Co.,		2	125			125				3	75	1	100	100		
Somerset and Cambria Coal Co.,				2	130	130				2	70	2	175	100		1
Federal Coal Co.,				2	120	120				2	60	3	90	90		
Grassy Run Coal Co.,							1				20					
Hocking Coal Co.,				3	450	450			2	3	425				1	1
Keystone Coal Co.,				2	200	200				4	260	1	150	60		1
Coronet Coal Co.,				1	40	40				1	35					
Kenneth Coal Co.,				1	15	15				1	10	1	30	20		
S. M. Hamilton and Co.,				2	160	160				2	88					1
Pennwood Coal Co.,				2	250	250			1	1	120	1	90	90	1	
W. A. Merrill and Co.,				1	35	35				1	35					
J. W. Preston,				2	140	140				2	60	3	625	390		1
Pittsburg Cambria Coal Co.,				2	88	88				3	24	2	75	40		1
Cumberland Basin Coal Co.,		2	110			110			1	1	150				1	
Fisher Smokeless Coal Co.,				2	110	110				1	25	1	250	50		
Totals,		21	2,335	88	14,185	16,520	1	1	85	114	16,405	57	13,525	8,765	33	22

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								Grand total inside and outside
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	
Consolidation Coal Co.,		13	11	----	1,396	14	146	14	139	20	130	------	1,883	5	2	29	26	57	20	119	258	2,141
Berwind-White Coal Mining Co.,		3	7	----	555	21	260	21	27	1	151	------	1,046	----	3	13	11	----	1	97	125	1,171
Jenner-Quemahoning Coal Co.,		2	2	8	97	25	196	23	47	2	47	14	463	1	1	7	13	----	2	74	98	561
Quemahoning Coal Co.,		3	2	----	295	------	------	------	2	3	30	3	338	----	3	5	3	----	3	18	32	370
Brothers Valley Coal Co.,		2	2	----	118	14	97	14	------	2	73	------	322	2	----	4	14	----	3	21	44	366
Merchants Coal Co.,		3	2	6	197	5	40	5	51	7	35	9	360	1	----	4	13	----	4	27	49	409
Meyersdale Coal Co.,		2	----	----	166	------	------	------	17	4	5	3	197	1	----	4	4	----	2	9	20	217
Knickerbocker Smokeless Coal Co.,		2	----	----	134	------	------	------	10	3	5	------	154	2	2	3	1	----	----	8	16	170
Somerset Mining Co.,		1	----	----	112	------	------	------	4	2	3	------	122	1	1	2	2	----	----	6	12	134
Reading Iron Co.,		2	----	----	48	2	36	2	5	------	7	4	106	1	1	4	4	----	2	16	28	134
Atlantic Coal Co.,		1	----	----	70	------	------	------	7	2	11	------	91	1	----	1	5	----	----	4	11	102
Enterprise Coal Co.,		1	----	----	59	------	------	------	6	2	2	------	70	1	----	1	1	----	1	4	8	78
Haws Coal Co.,		2	----	1	60	8	------	8	6	------	6	------	91	1	----	1	5	----	1	6	14	105
Carbo Smokeless Coal Co.,		2	----	----	80	------	------	------	5	------	2	------	89	----	----	2	2	----	1	4	9	98
Somerset and Cambria Coal Co.,		1	----	----	60	------	------	------	5	------	6	1	73	1	----	1	2	----	1	4	9	82
Federal Coal Co.,		2	----	----	80	------	------	------	8	2	2	------	94	1	----	1	2	----	1	4	9	103
Grassy Run Coal Co.,		1	1	----	62	------	------	------	7	------	------	------	71	1	1	1	----	----	1	3	7	78
Hocking Coal Co.,	Somerset,	1	----	----	85	------	------	------	------	1	14	------	101	1	1	2	3	----	1	25	33	134
Randolph Coal Co.,		1	----	----	48	------	------	------	3	1	------	------	53	----	----	----	----	----	1	2	3	56
Keystone Coal Co.,		1	----	----	61	------	------	------	5	1	------	------	68	1	1	1	1	----	----	3	7	75
Coronet Coal Co.,		1	----	----	50	------	------	------	3	2	2	------	58	1	----	1	1	----	1	3	7	65
Meyersdale Fuel Co.,		1	----	----	20	------	------	------	4	------	------	------	25	1	----	----	----	----	1	------	2	27
Stoner Coal Co.,		1	----	----	25	------	------	------	3	------	------	------	29	2	1	----	----	----	----	------	3	32
Kenneth Coal Co.,		1	----	----	26	------	------	------	2	1	2	------	32	1	----	1	1	----	----	3	6	38

S. M. Hamilton and Co.,	Somerset,	1	----	----	43	----	----	----	4	1	3	1	53	1	----	1	2	----	----	2	6	59
Pennwood Coal Co.,		1	----	----	27	----	----	----	1	1	2	----	32	1	----	1	1	----	1	----	4	36
W. A. Merrill and Co.,		1	----	----	16	----	----	----	3	----	----	----	20	----	----	----	1	----	----	2	3	23
J. W. Preston,		1	----	----	24	----	----	----	1	----	----	2	28	1	1	1	2	----	----	3	8	36
Pittsburg Cambria Coal Co.,		1	----	----	37	4	4	4	3	1	4	----	58	1	----	----	2	----	----	2	5	63
Fred Rowe,		----	----	----	8	----	----	----	1	----	----	----	9	1	----	----	----	----	----	----	1	10
Boynton Coal Co.,		----	----	----	6	----	----	----	1	----	----	----	7	1	----	----	----	----	----	1	2	9
Savage Fire Brick Co.,		1	----	----	7	----	----	----	1	----	----	----	9	1	----	----	----	----	----	----	1	10
Cumberland Basin Coal Co.,		1	----	----	24	1	----	----	2	----	1	----	29	1	----	1	1	----	----	2	5	34
Cochran Coal Co.,		----	----	----	5	----	----	----	1	----	----	----	6	----	1	----	----	----	----	----	1	7
Fisher Smokeless Coal Co.,		1	----	----	20	----	----	----	1	----	2	----	24	1	----	----	1	----	1	1	4	28
Totals,		58	27	15	4,121	94	779	91	385	59	545	37	6,211	36	19	92	124	57	49	473	850	7,061

TABLE 3—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Consolidation Coal Co.,	Somerset,	21	19	20	17	15	14	13	16	18	18	18	17	206
Berwind-White Coal Mining Co.,		20	19	24	25	24	26	22	22	24	23	23	23	275
Jenner-Quemahoning Coal Co.,		21	20	26	20	19	25	24	22	21	19	20	22	259
Quemahoning Coal Co.,		15	15	16	15	16	17	20	24	23	23	24	20	228
Brothers Valley Coal Co.,		14	12	24	18	20	18	23	21	21	19	22	20	232
Merchants Coal Co.,		13	4	13	15	18	13	17	19	18	17	19	15	181
Meyersdale Coal Co.,		23	18	25	22	22	20	22	24	25	24	25	24	274
Knickerbocker Smokeless Coal Co.,		20	18	16	15	20	18	23	22	20	17	16	9	214
Somerset Mining Co.,		20	18	20	17	17	16	22	23	20	13	16	12	214
Reading Iron Co.,		26	17	20	14	15	19	22	23	26	19	16	18	235
Atlantic Coal Co.,		22	24	27	26	23	25	23	25	23	26	19	11	274
Enterprise Coal Co.,		15	10	18	20	11	18	18	17	22	14	14	13	190
Haws Coal Co.,		22	19	23	17	9	8	9	12	24	20	19	12	194
Carbo Smokeless Coal Co.,		8	6	15	22	27	26	25	24	25	25	22	17	242
Somerset and Cambria Coal Co.,		12	14	18	11	12	14	22	22	18	15	16	9	183
Federal Coal Co.,		17	21	24	19	21	23	17	20	16	13	11	8	210
Grassy Run Coal Co.,		15	13	20	13	11	8	9	6	7	10	13	17	142
Hocking Coal Co.,		26	19	3	22	22	23	19	12	1	2	17	9	175
Randolph Coal Co.,		16	20	24	17	21	12	20	22	22	15	15	6	210
Keystone Coal Co.,		16	7	17	19	16	19	15	15	8	18	19	18	187
Coronet Coal Co.,		23	14	23	20	23	26	20	23	24	20	20	16	252
Meyersdale Fuel Co.,		16	11	20	22	6	6	14	15	20	19	15	10	174
Stoner Coal Co.,		17	19	22	21	19	25	25	19	19	21	21	20	248
Kenneth Coal Co.,		------	------	------	6	------	5	16	17	21	18	15	14	112
S. M. Hamilton and Co.,		17	12	------	------	------	------	------	------	------	21	19	18	87
Pennwood Coal Co.,		15	9	19	23	11	15	6	11	17	26	30	31	213
F. A. Merrill and Co.,		16	7	17	19	16	16	18	17	20	13	15	13	187
J. W. Preston,		20	19	20	8	12	8	10	6	9	5	15	10	142
Pittsburg Cambria Coal Co.,		9	11	10	9	14	16	15	17	19	20	19	23	182
Fred Rowe,		14	15	21	15	12	11	12	16	17	18	21	18	190
Boynton Coal Co.,		10	14	13	18	10	10	9	13	12	13	20	21	163
Savage Fire Brick Co.,		20	20	20	20	20	20	20	20	20	20	20	20	240
Cumberland Basin Coal Co.,		------	------	------	------	------	1	3	4	9	7	12	21	57
Cochran Coal Co.,		22	20	21	19	20	21	23	25	21	18	20	10	240
Fisher Smokeless Coal Co.,		------	------	------	------	------	------	------	------	------	------	24	20	44

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 7	Silvester Soppini,	Austrian,	Miner,	24	S.	----	----	Jerome Shaft No. 1,	Somerset,	Killed by falling down the shaft. He had just come up the shaft and thoughtlessly walked off the cage.
25	James Bowers,	American,	Miner,	37	M.	1	4	Reading No. 3,		Killed by falling against a piece of rock in his room. He had started to drill a hole to shoot down some loose rock when the rock fell, and in attempting to get out of the way he fell down and broke his neck.
	J. G. Logan,	American,	Supt.,	27	S.	----	---	Orenda No. 2,		Killed by an explosion of gas. See description of Fatal Accidents.
	George Morris,	American,	Asst. Supt.	47	M.	1	3			
	John Cole,	American,	Foreman,	50	M.	1	---			
	Andrew Stulock,	German,	Miner,	52	M.	1	---			
	John Stulock,	German,	Miner,	21	S.	----	---			
29	Jesse Carnahan,	American,	Miner,	23	M.	1	1	Jerome Shaft No. 1,		Killed by fall of bone coal while taking out pillars. After examining the roof after a heavy fall, he began to mine the coal, when the fall occurred. A careful examination of the place would have disclosed the loose bone coal.
Feb. 5	Michael Moodrick,	Slavonian,	Runner,	32	M.	1	5	Jerome Shaft No. 1,		Killed at the shaft bottom by being caught between the cage and the side of the shaft. There were ten men on the cage being lowered into the shaft. The engineer through some error lost control of the engine, allowing the cage to strike the shaft bottom hard and Moodrick and Burchus were either jarred off or attempted to get off the cage and were caught as stated.
	Charles Burchus,	Lithuanian,	Scraper,	23	S.	----	---			
17	Michael Tobbias,	Italian,	Miner,	23	S.	----	----	Eureka No. 31,		Killed by fall of slate while drawing entry stumps. He had failed to set posts to secure the place.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
March 9	Ognats Mocko,	Polish,	Miner,	23	S.			Eureka No. 30,		Killed by fall of slate while drawing entry stumps.
11	Simon Beal,	American,	Miner,	70	M.	1	2	Standard No. 3,		Killed by fall of slate while cutting coal at face of room.
13	Enoch Dowen, Jr.,	English,	Pipeman,	27	M.	1	2	Eureka No. 31,		Killed by shock from an electric wire charged with 500 volts while repairing pipes under an electric wire. In some way he got the back of his neck against the wire.
31	Gennaro Celestino,	Italian,	Miner,	43	M.	1	3	Elk Lick No. 1,		Fatally injured by fall of slate at face of room. He had neglected to set posts.
April 6	Michael Rummond,	Slavonian,	Roadman,	26	S.			Pen Mar No. 2,		Killed instantly by being caught between the top of loaded car on which he was riding while the car was being pulled from a dip entry by a rope.
16	Thomas Washko,	American,	Miner,	17	S.			Eureka No. 30,	Somerset,	Killed by fall of coal while undermining in heading stumps. He failed to support the roof.
May 18	Harry Redshaw,	English,	Miner,	25	S.			Knickerbocker No. 2,		Killed by fall of slate in his room while preparing to set posts.
	Frank Kudosick,	Polish,	Miner,	45	M.	1	4	Orenda No. 2,		Killed by mine car while dropping it down from the face of his room. He was evidently riding on the front and fell under the car.
June 7	Samuel Polara,	Italian,	Miner,	45	S.			Pen Mar No. 2,		Killed by fall of top coal while undermining at the face of his room.
15	Valentine Stelma,	Polish,	Trip rider,	32	M.	1		Orenda No. 2,		Killed by falling under trip of cars.
July 9	George Porado,	Polish,	Miner,	23	S.			Atlantic,		Killed by fall of roof while top cutting the coal at face of room. His place was very well propped.

July	28	John Leschuk,	Slavonian,	Loader,	22	S.	Jerome Shaft No. 1,			Killed by shock from an electric wire charged with 250 volts. While helping to push a mine car into his room he got the back of his neck against the wire.
Aug.	18	Brenk Sando,	Italian,	Laborer,	26	S.	Jerome Shaft No. 2,			Killed by falling down shaft. He was standing close to the edge of the tipple landing of the shaft waiting to get orders from the top man to go on the cage, when the cage began to descend without him. The safety gate came down on him, throwing him into the shaft. He fell on the descending cage and broke his neck.
	28	Cornelias Sela,	Italian,	Miner,	23	S.	Ponfeigh,	Somerset,		Killed by fall of roof while starting a room. He had fired a shot in the bottom slate that discharged some posts from under cross bars and the roof fell on him.
Sept.	13	Andy Lucket,	Slavonian,	Miner,	22	S.	Eureka No. 31,			Killed instantly by shock from an electric wire charged with 500 volts. He was pushing his mine car into his room, and while doing so raised his head, striking the wire.
	21	Robert Fleming,	Scotch,	Rope rider,	18	S.	Jenner No. 3,			Killed by falling between the cars and being run over. Outside.
Oct.	2	Hogan Shalis,	American,	Motorman,	26	M. 1 2	Ralphton No. 3,			Killed by motor. He was running his motor at high speed around a switch on the trestle, when it jumped the track and fell to the ground, crushing him underneath.
Dec.	13	Thomas Kregal,	Slavonian,	Track cleaner,	23	S.	Jerome Shaft No. 1,			Killed by falling down shaft.
	21	Samuel Scally,	Italian,	Miner,	22	S.	Orenda No. 2,			Fatally injured by fall of coal while undermining. He failed to secure it.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 11	Norman Engle,	American,	Miner,	65	M.	Elk Lick No. 1,	Somerset,	Leg injured by fall of coal at face of room.
29	Michael Dumbrosky,	Polish,	Loader,	20	S.	Eureka No. 30,		Leg fractured by fall of coal while robbing pillars.
Feb. 2	George Syerat,	Slavonian,	Miner,	26	S.	Pine Hill No. 1,		Collar bone broken by fall of roof slate while drawing pillars.
5	John Platter,	American,	Miner,	71	M.	Grassy Run No. 2,		Leg broken by fall of coal while working at the face.
8	Stiney Dunkosky,	Slavonian,	Miner,	16	S.	Eureka No. 30,		Leg broken by fall of coal from the rib, while loading car on the side, in pillar work.
26	James Gierdine,	Italian,	Miner,	24	S.	Jenner No. 3,		Compound fracture of leg by fall of slate out along the room.
March 5	R. M. May,	American,	Spragger,	22	S.	Jenner No. 2,		Leg broken while coupling the wagons to motor. When the wagons bumped from behind his leg was caught between them and the motor. Outside.
9	Anton Mocko,	Polish,	Miner,	30	S.	Eureka No. 30,		Injured about the body by fall of slate in pillar workings.
19	N. S. Saylor,	American,	Miner,	31	M.	Listie,		Left eye injured by a pick. He was shoveling coal and struck his eye against a pick that was lying on a bench of coal close to the face of the room.
20	Anthony Cleim,	Lithuanian,	Miner,	40	M.	Jerome No. 1,		Compound fracture of leg by fall of bone coal in pillar work.
22	Paul Gianory,	Italian,	Miner,	19	S.	Stauffer,		Back seriously injured by fall of rock in pillar work.
April 16	M. E. Jones,	American,	Night foreman,	42	M.	Eureka No. 31,		Arm broken and body badly injured by mine cars. While running the electric motor into the mine he ran into some empty cars that had broken loose from the trip ahead of him.

April	28	James Palla,	Italian,	Miner,	19	S.	Eureka No. 31,		Leg broken by mine cars leaving the track along the cross heading.
	28	Stanley Grobosky,	Russian,	Miner,	30	S.	Jenner No. 3,		Leg broken by fall of rock at the working face.
May	1	John Browna,	Italian,	Miner.	24	S.	Eureka No. 31,		Hip injured by jumping out of a man trip while it was in motion.
	6	Michael Perry,	Italian,	Miner,	40	M.	Summit No. 1,		Face, hands and body burned by powder while filling a small can. They had taken the keg of powder into the mine unknown to the mine boss.
		Michael Villaus,	Italian,	Miner.	43	S.			
	7	Andrew Kost,	Slavonian,	Miner,	21	S.	Jerome No. 1,		Side and back injured by fall of coal in pillar work.
	12	Joseph Droust,	Slavonian,	Driver.	42	S.	Jerome Shaft No. 1,		Leg broken by mine wagons. While taking a loaded trip down the heading another driver run a wagon out of a side heading and Droust's leg was caught between wagons.
	15	Thomas Jones,	English,	Timberman,	38	M.	Knickerbocker No. 2,		Leg broken by fall of rock from the side of the entry.
	21	Joseph Labodis,	Slavonian,	Miner,	28	M.	Pen Mar No. 2,		Leg broken by a rope slipping from a sheave wheel along the heading.
June	12	Thomas Hudson,	Scotch,	Rock boss,	71	M.	Eureka No. 31,		Leg broken by clay falling from side of the shaft while timbering it.
	28	Andy Ligua,	Slavonian,	Driver.	24	M.	Atlantic,		Body squeezed between mine car and post when car left the sidetrack.
	29	Benjamin Sperry,	American,	Miner.	18	S.	Elk Lick No. 1,	Somerset,	Rib broken, shoulder and body bruised by fall of coal in pillar work.
July	17	John Wilvitch,	Polish,	Motorman,	22	S.	Orenda No. 2,		Fingers crushed by wagons running over them at room switch.
	20	John Patrovish,	Slavonian,	Miner,	22	S.	Knickerbocker No. 2,		Arm broken by fall of top slate at face of room.
		Martin Seasock,	Slavonian,	Miner,	19	S.			Back injured.
		William Mays,	English,	Miner.	29	S.	Stauffer No. 1,		Back and shoulder injured by fall of roof slate on the heading.
	21	John Buchion,	Slavonian,	Scraper,	42	M.	Eureka No. 31,		Leg broken by fall of top slate at face of room.
	24	George Freeman,	American,	Miner.	50	M.	Listie,		Head, arm and leg injured by fall of top slate at face of heading.
Aug.	2	Charles Shunk,	American,	Electrician,	29	M.	Elk Lick No. 1,		Leg broken by being squeezed between motor and timber at mine opening.
	6	Michael Membrom,	Italian,	Miner.	27	M.	Summit,		Side bruised by fall of slate at working face.
	10	Martin Sendock,	Polish,	Miner.	35	M.	Eureka No. 31,		Leg cut and bruised by being caught between mine wagons on the heading.
	20	Joseph Barron,	Polish,	Miner,	46	M.	Orenda No. 2,		Leg broken by fall of slate while propping it on the heading.
	23	Harry Inshoff,	American,	Miner.	46	M.	Summit No. 2,		Nose broken and face bruised by being kicked by a mule.

TABLE 5 —Continued

Date of accident		Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Sept.	2	Frank Laudsmayer,	German,	Miner,	17	S.	Stauffer No. 1,		Top of thumb and finger blown off while playing with dynamite.
Oct.	1	Andrew Gulick,	Slavonian,	Rockman,	36	M.	Eureka No. 30,		Leg broken by car of rock at face of heading. The car ran back off the track and caught his leg under the car.
	8	Joseph Ptack,	Polish,	Miner,	22	S.	Stuart,		Leg bruised by fall of slate in pillar work.
	20	James Palls,	Italian,	Miner,	19	S.	Eureka No. 31,		Leg broken by fall of coal while taking out heading stumps.
	31	Fred Rudolfa,	Austrian,	Miner,	35	M.	Stauffer No. 1,		Leg broken by a piece of falling timber at working face.
Nov.	13	William Dickey,	Slavonian,	Miner,	39	S.	Stauffer No. 1,		Thumb smashed by fall of coal while making a side track.
		Frank Sellon,	Slavonian,	Miner,	22	S.	Stauffer No. 1,		Cut close to the eye by a piece of rock while working on side track.
		Harry Bowser,	American,	Laborer,	19	S.	Elk Lick No. 1,		Hip joint knocked out of place by mine car. Outside.
	23	Guporis Dominick,	Italian,	Miner,	25	S.	Elk Lick No. 1,	Somerset,	Shoulder knocked out of place by fall of coal at face of room.
	27	Albert Gauntze,	American,	Runner,	20	S.	Elk Lick No. 1,		Foot badly bruised between mine cars along the heading.
	30	Michael Lisingal,	Slavonian,	Miner,	26	M.	S. and C. No. 1,		Jaw broken and side injured by fall of coal at face of room.
Dec.	13	Steven Glass,	Coalion,	Brakeman,	26	M.	Jerome No. 2,		Foot smashed by a motor in the mine along the main heading.
	20	John Danks,	Slavonian,	Miner,	36	M.	Stauffer No. 1,		Thumb smashed and back injured by fall of top in pillar work.
		Heskell Kimmell,	American,	Spragger,	22	S.	Reading No. 3,		Leg broken by mine cars along the heading.
	29	Michael Salena,	Slavonian,	Miner,	44	M.	Elk Lick No. 1,		Ribs broken and ankle injured by fall of slate in pillar work.

Explosion of Gas at Orenda No. 2 Mine

On January 25, at 8 o'clock in the evening, an explosion of gas occurred at the Orenda No 2. mine of the Merchants Coal Company, located at Boswell, by which J. G. Logan, the Superintendent, George Morris, the Assistant Superintendent, John Cole, Mine Foreman, Andrew Stulock and John Stulock, Miners, were killed. About five o'clock in the afternoon of the day of the explosion a trackman passing down the first South dip heading, between rooms Nos. 3 and 5, ignited some gas. He reported it to the fire boss. A little later the same trackman again ignited the gas in about the same place; and two miners going out at quitting time also ignited the gas in about the same place. They then returned down the heading and went out by another road. The mine foreman hearing of the gas being ignited in No. 1 dip off No. 7 Right, proceeded to make an investigation of the place, and in company with the Superintendent and the Assistant Superintendent entered the mine. The electric current was cut off from the mine and instructions were sent out to stop any person from entering the mine. The fan was working as a force fan and the slope serving as a return airway. About 8 o'clock the explosion occurred. The body of Logan was found at Sixth right level. The bodies of Morris and Cole were found at a point in No. 7 Right level beyond the return current from No. 1 dip. No other persons were known to be in the vicinity at the time of the explosion. The bodies of Andrew and John Stulock, German miners, were found in No. 3 South of No. 8 Left. After a very thorough investigation of the place, in No. 1 dip between Rooms Nos. 3 and 5, the conclusion was reached that the cause of the disaster was an explosion of the gas given off by the falls in the pillar workings in the No. 1 Dip heading, ignited by a feeder of gas left burning from the previous ignition about 5.40 P. M.

CONDITION OF MINES

CONSOLIDATION COAL COMPANY

Jenner Nos. 1 and 2.—Ventilation and drainage good.

Jenner No. 3.—Ventilation is weak and is not conducted close to the working face. Drainage fair.

Jenner Nos. 4. and 5.—Ventilation and drainage very good.

Stuart.—Ventilation and drainage good. The mine is nearly exhausted.

Listie.—Ventilation is not well maintained up to the working face. Drainage requires attention.

Wilson Creek.—Ventilation and drainage good.

Pine Hill No. 1.—Ventilation and drainage are very unsatisfactory, and very little effort is being made to improve them.

Casselman No. 2.—Ventilation is poorly taken care of and allowed to leak through gob airways. Drainage good.

Summit No. 1.—Ventilation weak; drainage good.

Summit No. 2.—Ventilation and drainage fair.

Elk Lick Nos. 1 and 3.—Ventilation very weak. The condition of the road and their sides is very unsatisfactory.

Elk Lick No. 2.—Ventilation good; drainage fair.

Hamilton.—General condition is good. The mine is nearly exhausted.

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 30.—Ventilation good except in No. 10 Right. Drainage good. General condition of the mine is satisfactory.

Eureka No. 31.—Ventilation is weak in the major portion of the mine. Drainage good except in part of the new drift. The general condition of the cross headings is not satisfactory, because of the amount of refuse allowed to accumulate along the sides and in the safety holes.

Eureka No. 39 Upper.—Ventilation is very weak and unsatisfactory. Drainage is well taken care of. Many of the headings are in such a condition as to require special attention.

JENNER-QUEMAHONING COAL COMPANY

Jerome Shaft Nos. 1 and 2.—Ventilation, drainage, general conditions, and discipline very good.

QUEMAHONING COAL COMPANY

Ralphton Nos. 1, 2, 3 and 4.—Conditions fair with the following exceptions: In Nos. 1, 3 and 4 the ventilation, is very poorly taken care of, and only a small per cent. of the large volume of air produced by the fans is delivered to the working face as the air is allowed to leak through ineffective stoppings.

BROTHERS VALLEY COAL COMPANY

Pen Mar No. 2.—Ventilation is very weak and poorly taken care of. Drainage good.

Pen Mar No. 3.—Ventilation is well maintained up to the working face. Drainage is well provided for.

MERCHANTS COAL COMPANY

Orenda No. 2.—Ventilation, drainage, and general conditions are very good.

Merchants No. 3.—Ventilation is good. The drainage is very unsatisfactory in parts of the mine.

MEYERSDALE COAL COMPANY

Stauffer No. 1.—Ventilation is very weak in parts of the mine. Drainage is good, except in No. 3 Left. General condition of the mine is good.

Stauffer No. 2.—Ventilation and drainage require attention.

KNICKERBOCKER SMOKELESS COAL COMPANY

Knickerbocker No. 2.—Ventilation well taken care of and maintained up to the working faces. Drainage good; general condition of the mine is good.

Knickerbocker No. 3.—Ventilation fair; drainage good. General conditions have been very much improved during the year.

SOMERSET MINING COMPANY

Knickerbocker No. 1.—Ventilation, drainage and general conditions are very good.

READING IRON COMPANY

Reading No. 3 (formerly Kimmelton No. 3.)—Ventilation was weak at the last visit, but a strong effort was being made to have it put in good condition. Drainage good.

Reading No. 4 (formerly Kimmelton No. 4.)—Ventilation, drainage and general conditions are very good.

ATLANTIC COAL COMPANY

Atlantic.—Ventilation is not well conducted to the working faces. Drainage good.

ENTERPRISE COAL COMPANY

Ponfeigh.—Ventilation is very weak throughout the mine; drainage good. The condition of the haulage roads is very bad, caused by the accumulation of dirt and general refuse.

HAWS COAL COMPANY

Lenore Shaft.—Ventilation is good and well maintained up to the working faces. Drainage should receive attention.

Oneida Slope.—Ventilation and drainage good.

CARBO-SMOKELESS COAL COMPANY

Bethel No. 2.—Ventilation is very weak at the face of the workings. The drainage in parts of the mine requires attention.

Bethel No. 3.—Ventilation is not well taken care of. Drainage poor on the new main.

SOMERSET AND CAMBRIA COAL COMPANY

S. and C. No. 1.—Ventilation is weak and not well cared for. Drainage good.

FEDERAL COAL COMPANY

Federal No. 1.—Ventilation and drainage good.

Federal No. 3.—Ventilation very weak and poorly taken care of. Drainage poor.

GRASSY RUN COAL COMPANY

Grassy Run Nos. 1 and 2.—These mines are connected for ventilation and drainage. They are in good condition.

HOCKING COAL COMPANY

Hocking No. 2.—Ventilation and drainage good in the parts of the mine that were worked.

RANDOLPH COAL COMPANY

Randolph.—Ventilation and drainage reasonably good.

KEYSTONE COAL COMPANY

Keystone Nos. 1 and 2.—Ventilation is very weak and not properly taken care of. The drainage is very bad and should be given attention. Keystone No. 1 is now Glen McClaren.

CORONET COAL COMPANY

Standard No. 3.—Fairly well ventilated. Some parts are not properly drained.

MEYERSDALE FUEL COMPANY

Yoder.—Fairly well ventilated and drained.

STONER COAL COMPANY

Stoner Nos. 1 and 2.—Method of producing the ventilation is not satisfactory. Drainage good.

KENNETH COAL COMPANY

Kenneth.—Ventilation is very weak in parts of the mine. The drainage in the main heading requires attention.

S. M. HAMILTON AND COMPANY

Adams.—Ventilation is reasonably good, but the drainage needs attention.

PENNWOOD COAL COMPANY

Pennwood.—Ventilation and drainage reasonably good.

W. A. MERRILL AND COMPANY

Enterprise.—Ventilation and drainage are very satisfactory.

J. W. PRESTON

Franklin Nos. 2 and 3.—Ventilation good. The drainage is not well provided for and should receive immediate attention.

PITTSBURG CAMBRIA COAL COMPANY

Morro Nos. 1 and 2.—The ventilating current of air is not strong enough at the working faces, owing to small airways and leaky stoppings.

FRED ROWE

Mystic.—Not under the law.

BOYNTON COAL COMPANY

Flog Hill.—Not under the law.

SAVAGE FIRE BRICK COMPANY

Glade City.—Not under the law.

CUMBERLAND BASIN COAL COMPANY

Cook.—In very good sanitary condition.

COCHRAN COAL COMPANY

Cochran.—Not under the law.

FISHER SMOKELESS COAL COMPANY

Neva.—There was neither fan nor furnace at this mine, but a fan is to be installed at once. Drainage requires attention.

IMPROVEMENTS

CONSOLIDATION COAL COMPANY

Casselman No. 2.—The tipple was burned down in June and a large and modern one has been erected.

Jenner Nos. 4 and 5.—Installed a Lepley reversible fan, diameter 20 feet, width 7 feet, driven by a 24 x 24 inch four-valve Corliss type adjustable cut-off engine; engine fitted with a continuous automatic oil and grease system. The fan is built to deliver 200,000 cubic feet of air at 2-inch water gauge. The maximum safety running speed of this fan is 165 revolutions per minute.

BERWIND-WHITE COAL MINING COMPANY

Eureka No. 30.—The steam power plant has been abandoned and all power is conducted to the mine from a large central power plant that furnishes the electric current and the compressed air power for several mines. An opening has been driven out at the other side of the hill, and as a result the ventilation has been very much improved.

Eureka No. 31.—The steam power plant of this mine also has been abandoned, and the mine also receives its power from the large central power plant. The large Capell fan at the main opening has been abandoned and a new Stine fan placed at the rear end of the old workings, and a large Sturdevant fan placed at the new drift in the adjoining hill. Between these hills a large brick sub-station and power house has been erected, in which have been installed two directly connected motor-driven compressors; one 400 Kw. rotary converter, and three 125 Kw. oil-cooled transformers, receiving 6600 volts alternating current, and delivering same at 440 to 460 volts, for the operation of pumps and mining machines equipped with inductive motors.

Eureka No. 39 Upper.—The improvements here follow the same line as those above. A new sub-station has been built inside the mine, in which a lead-covered triple cable 6600 volts is connected to three 75 Kw. oil-cooled transformers.

JENNER-QUEMAHONING COAL COMPANY

Jerome Shaft No. 1.—Some expensive improvements for cleaning the coal have been installed, and a large cut stone lamp and check house has been erected.

MERCHANTS COAL COMPANY

Orenda No. 2.—A very large electrically driven pump has been installed in a new pump house, and second one is now under construction. A modern lamp and check house has been built. These improvements reflect great credit on the management.

HOCKING COAL COMPANY

Hocking No. 2.—A second retaining dam to resist a head of water of 90 feet is being built to keep the water of the old works from coming into this mine.

PENNWOOD COAL COMPANY

Pennwood.—A large and very expensive coaling tipple and coal bin have been built to enable the coaling of engines on four tracks.

CUMBERLAND BASIN COAL COMPANY

Cook Mine.—A new electric haulage plant has been installed. The management desires to put everything in good condition.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

Joseph Speno, miner at the Orenda No. 2 mine of the Merchants Coal Company, was charged with having an open light in the section of the mine that is worked with locked safety lamps. Defendant entered a plea of guilty and was sentenced to pay the cost, and five days in jail.

Joseph Nowaka, miner at Jerome Shaft No. 1 of the Jenner-Quemahoning Coal Company, was charged with violating General Rule No. 52 in crowding and pushing to get on the cage. Defendant pleaded guilty and was sentenced to pay the cost.

H. K. Stoner, of the Stoner Coal Company, was charged with operating a coal mine without a Mine Foreman as required by Article VI. The case is pending in court.

MINE FOREMEN'S EXAMINATIONS

The annual examination of applicants for certificates of qualification as Mine Foremen and Fire Bosses was held in Somerset, April 6, 7, 8 and 9.

The Board of Examiners was composed of Thomas S. Lowther, Mine Inspector; James H. Scurfield, Superintendent, and Thomas Griffith, Mine Foreman. There were fifty-seven applicants examined, thirty-eight for certificates as Mine Foremen, and nineteen for certificates as Fire Bosses. The following persons passed a satisfactory examination and were granted certificates as Mine Foremen:

First Grade

John Gibson, Jr., and Isaiah Clayton, Jerome.

Second Grade

George Mitchell and William Mitchison, Garrett.

TWENTY-FIRST DISTRICT

WESTMORELAND, FAYETTE AND WASHINGTON COUNTIES

Charleroi, Pa., February 10, 1910.

Hon. James E. Roderick, Chief of Department of Mines:

Sir: I have the honor to transmit herewith my annual report as Inspector of the Twenty-first Bituminous District for the year ending December 31, 1909. This is a new district and was assigned to me July 1, 1909.

The usual descriptive and statistical matter is given in the report.

Respectfully submitted,

F. W. CUNNINGHAM,
Inspector.

SUMMARY OF STATISTICS

Number of mines,	38
Number of mines in operation,	38
Number of tons of coal shipped to market,	7,670,067
Number of tons used at mines for steam and heat,	143,633
Number of tons sold to local trade and used by employes,	14,746
Number of tons used in the manufacture of coke,	78,498
Number of tons of coal produced,	7,906,944
Number of tons of coke produced,	52,913
Number of coke ovens,	217
Number of coke ovens in operation,	217
Number of tons of coal produced by pick mining,	2,604,669
Number of tons produced by compressed air machines,	145,394
Number of tons produced by electrical machines,	5,156,881
Number of persons employed inside of mines,	7,293
Number of persons employed outside, including coke workers,	919
Number of persons employed at manufacture of coke,	40
Number of fatal accidents inside of mines,	27
Number of fatal accidents outside,	1
Number of non-fatal accidents inside of mines,	53
Number of non-fatal accidents outside,	———
Number of tons of coal produced per fatal accident inside,	292,850
Number of persons employed per fatal accident inside,	270
Number of persons employed per fatal accident outside,	919
Number of persons employed per non-fatal accident inside,	138
Number of persons employed per non-fatal accident outside,	———
Number of wives made widows,	12
Number of children made orphans,	30
Number of steam locomotives used inside of mines,	———
Number of steam locomotives used outside,	———
Number of compressed air locomotives used inside,	———
Number of compressed air locomotives used outside,	———
Number of electric motors used inside,	85
Number of electric motors used outside,	———
Number of fans in use,	36
Number of furnaces in use,	6
Number of gaseous mines in operation,	31
Number of non-gaseous mines in operation,	7
Number of new mines opened,	1
Number of old mines abandoned,	———

TABLE A

PRODUCTION OF COAL

Names of Operators	Tons
Monongahela River Consolidated Coal and Coke Company,	3,356,697
Vesta Coal Company,	2,338,482
Pittsburg Coal Company,	1,255,306
Peoples Coal Company,	282,071
Naomi Coal Company,	223,557
Diamond Coal Company,	176,911
Sunshine Coal and Coke Company,	52,818
Zundell Coal Company,	51,515
Harris-Smith Coal and Coke Company,	42,164
Echo Coal Company,	37,190
Pates Coal Works,	30,601
Mt. Hope Coke Company,	25,840
Peter Wagner,	16,245
Wilson Coal Company,	14,040
Johnston Coal Company,	3,057
Warner and Leonard Coal Company,	450
Total,	7,906,944

Production by Counties

Westmoreland,	586,799
Washington,	3,794,429
Fayette,	3,525,716
Total,	7,906,944

TABLE B.—Fatal and non-fatal accidents inside and outside of mines; number of tons of coal produced per accident; number of persons employed; number employed per accident

Names of Operators	Fatal Accidents			Non-Fatal Accidents			Tons of coal produced per fatal accident inside	Tons of coal produced per non-fatal accident inside	Number of employes inside	Number of employes outside	Total number of employes	Number of employes inside per fatal accident	Number of employes outside per fatal accident	Number of employes inside per non-fatal accident	Number of employes outside per non-fatal accident
	Inside	Outside	Total	Inside	Outside	Total									
Monongahela River Consolidated Coal and Coke Co.,	14	1	15	20		20	239,764	167,835	3,306	382	3,688	236	382	165	
Vesta Coal Co.,	7		7	17		17	334,060	137,557	1,694	182	1,876	242		99	
Pittsburg Coal Co.,	3		3	4		4	418,435	313,826	1,359	145	1,504	453		339	
Peoples Coal Co.,				5		5		56,414	275	36	311			55	
Naomi Coal Co.,	1		1				223,557		193	41	234	193			
Diamond Coal Co.,	1		1	4		4	176,911	44,228	126	24	150	126		31	
Sunshine Coal and Coke Co.,				2		2		26,409	78	44	122			39	
Zundell Coal Co.,				1		1		51,515	45	10	55			45	
Wilson Coal Co.,	1		1				14,040		24	4	28	24			
Miscellaneous Companies,									193	51	244				
Totals and averages for district,	27	1	28	53		53	292,850	149,187	7,293	919	8,212	270	919	138	

TABLE C.—Classification of Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	----	----	1	1	2	----	1	----	----	----	----	----	5	18.52
Falls of slate,	2	2	2	1	1	----	----	----	2	----	1	----	11	40.74
Falls of roof,	1	----	----	----	----	1	----	----	----	----	----	----	2	7.41
Mine cars,	1	----	----	----	----	----	----	----	----	----	1	3	5	18.52
Blasts, premature and otherwise,	----	----	----	----	----	----	----	----	----	----	----	1	1	3.70
Electricity,	2	----	----	1	----	----	----	----	----	----	----	----	3	11.11
Totals,	6	2	3	3	3	1	1	----	2	----	2	4	27	100.00
Causes of Accidents Outside														
Machinery,	----	----	----	----	----	----	1	----	----	----	----	----	1	100.00
Totals,	----	----	----	----	----	----	1	----	----	----	----	----	1	100.00
Grand totals inside and outside,	6	2	3	3	3	1	2	----	2	----	2	4	28	------

TABLE D.—Classification of Non-Fatal Accidents Inside and Outside of Mines

	Months													
	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentages
Causes of Accidents Inside														
Falls of coal,	1	1	----	1	1	----	1	1	----	----	----	----	6	11.32
Falls of slate,	1	2	1	2	2	1	----	1	2	2	4	----	18	33.96
Falls of roof,	----	1	----	1	1	4	----	----	----	----	1	----	8	15.09
Mine cars,	3	----	----	----	2	1	1	3	----	1	----	1	12	22.64
Blasts, premature and otherwise,	3	2	----	----	----	----	----	1	1	----	----	----	7	13.21
Machinery,	----	----	----	----	----	----	----	----	----	----	1	----	1	1.89
Miscellaneous,	1	----	----	----	----	----	----	----	----	----	----	----	1	1.89
Totals,	9	6	1	4	6	6	2	6	3	3	6	1	53	100.00
Causes of Accidents Outside (No accidents)														

TABLE E.—Occupations of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Miners,	1	----	2	1	1	1	----	----	1	----	----	1	8
Machine loaders,	4	2	1	2	2	----	1	----	1	----	1	1	15
Drivers and runners,	----	----	----	----	----	----	----	----	----	----	1	1	2
Company men,	----	----	----	----	----	----	----	----	----	----	----	1	1
Motormen,	1	----	----	----	----	----	----	----	----	----	----	----	1
Totals,	6	2	3	3	3	1	1	----	2	----	2	4	27
Outside													
Blacksmiths and carpenters,	----	----	----	----	----	----	1	----	----	----	----	----	1
Totals,	----	----	----	----	----	----	1	----	----	----	----	----	1
Grand totals inside and outside,	6	2	3	3	3	1	2	----	2	----	2	4	28

TABLE F.—Occupations of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
Inside													
Assistant mine foremen,	----	----	----	----	----	1	----	----	----	----	----	----	1
Miners,	5	3	----	3	4	1	1	1	1	1	3	----	23
Machine runners,	----	----	----	----	----	----	----	----	----	1	1	----	2
Machine loaders,	----	3	1	1	1	1	----	2	2	1	2	----	14
Drivers and runners,	3	----	----	----	----	2	----	3	----	----	----	1	9
Pumpmen,	1	----	----	----	----	----	----	----	----	----	----	----	1
Motormen,	----	----	----	----	1	1	1	----	----	----	----	----	3
Totals,	9	6	1	4	6	6	2	6	3	3	6	1	53
Causes of Accidents Outside (No accidents.)													

TABLE G.—Nationality of Persons Killed or Fatally Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	1	----	----	----	1	----	1	----	----	----	1	----	4
English,	----	----	----	1	----	----	----	----	----	----	----	1	2
Scotch,	----	----	1	----	----	----	----	----	----	----	----	----	1
German,	----	----	1	1	----	----	----	----	----	----	----	----	2
Polish,	1	1	1	----	----	----	----	----	----	----	1	----	4
Italian,	2	1	----	----	----	1	----	----	1	----	----	2	7
Slavonian,	1	----	----	----	1	----	1	----	1	----	----	----	4
Austrian,	----	----	----	----	1	----	----	----	----	----	----	1	2
Russian,	1	----	----	1	----	----	----	----	----	----	----	----	2
Totals,	6	2	3	3	3	1	2	----	2	----	2	4	28

TABLE H.—Nationality of Persons Injured Inside and Outside of Mines

	Months												
	January	February	March	April	May	June	July	August	September	October	November	December	Totals
American,	4	1	----	----	----	2	2	4	----	----	2	----	15
English,	----	----	----	----	1	1	----	----	----	----	----	----	2
German,	----	----	----	----	2	----	----	----	----	----	----	----	2
Polish,	----	----	----	----	----	----	----	----	----	1	1	----	2
Hungarian,	----	1	1	2	2	----	----	1	1	----	----	----	8
Italian,	----	2	----	----	----	2	----	----	----	1	----	----	5
Slavonian,	1	2	----	2	----	1	----	----	1	1	2	1	11
Lithuanian,	----	----	----	----	----	----	----	1	----	----	----	----	1
Russian,	2	----	----	----	1	----	----	----	----	----	1	----	4
Belgian,	1	----	----	----	----	----	----	----	----	----	----	----	1
Finnish,	1	----	----	----	----	----	----	----	1	----	----	----	2
Totals,	9	6	1	4	6	6	2	6	3	3	6	1	53

TABLE I.—Operators and mines, kind of openings, type and size of fans, size of furnaces, volume of air produced by fan or furnace per minute, number of splits of air currents, and number of persons employed inside

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Monongahela River Consolidated Coal and Coke Co.																
Alice,	Drift,	Gaseous,	Fan,	25	9	8	78	2.05	Pollock,	Steam,		5	105,000	81,500	108,000	352
Tremont,	Drift,		Fan,	18	4.5	4.3	82	1.30	Robinson,	Steam,		4	81,000	41,260	86,450	254
Eclipse,	Drift,		Fan,	12	6	6	116	2.00	Robinson,	Steam,		6	108,000	53,500	112,000	300
Little Redstone,	Drift,		Fan,	8	1.4		400	1.4	Stine,	Electricity,		3	72,100	33,850	73,600	205
Apollo,	Drift,		Fan,	15	7	7	127	1.70	Capell,	Electricity,		5	112,000	76,300	118,750	256
Fayette City,	Drift,		*									6	135,000	45,000	137,000	100
Chamouni,	Slope,		Fan,	20	6	5	66	1.50	Guibal,	Steam,		3	44,000	25,700	49,280	217
Albany,	Slope,		Fan,	12	5.75	5.5	160	2.00	Robinson,	Steam,		4	54,000	26,800	58,500	210
Knob,	Slope,		Fan,	16	6	6	79	1.60	Vulcan,	Steam,		3	58,000	25,800	60,000	234
Crescent,	Slope,		Fan,	8	1.4		350	1.80	Stine,	Electricity,		4	66,000	32,800	68,000	201
Vigilant,	Slope,		Fans,	25	8	6	43	1.90	Guibal,	Steam,		5	95,000	34,200	99,950	175
				6	1.3		225	0.5	Stine,	Steam,	36					
			Furnace,													
Champion,	Drift,		Furnace,								36	1	10,900	6,000	12,500	46
Washington,	Drift,		Fan,	16	5.5	5.6	80	1.00	Robinson,	Steam,		1	23,500	8,000	24,100	54
Snow Hill,	Drift,		Fan,	16	5.5	4	46	1.00	Robinson,	Steam,		1	26,100	17,400	28,800	70
Beaumont,	Slope,		†									1	7,500	7,500	7,500	35

*Ventilated by fan at Apollo mine.
†Ventilated by fan at Knob mine.

Vesta Coal Co.																
Vesta Nos. 1 and 2,	Drift,	Gaseous,	Fan,	24	8	8	64	2.00	Pollock,	Steam,		3	74,000	50,000	78,000	257
Vesta No. 3,	Drift,	Gaseous,	Fan,	6	3	2.5	252	1.00	Jeffrey,	Electricity,		3	65,000	35,000	67,200	275
Vesta No. 4,	Drift,	Gaseous,	5 Fans,	16	8	5.5	114	2.00	Robinson,	Steam,		15	454,200	173,200	467,820	§1,007
				6	4	2.5	329	1.00	Jeffrey,	Electricity,						
				16	6	7.5	140	2.00	Capell,	Electricity,						
				‡20	8	9.5			Capell,	Electricity,						
				6	4	2.5	225	0.50	Jeffrey,	Electricity,						
Pittsburg Coal Co.																
Somers No. 2,	Drift,	Gaseous,	Fan,	15	4.5	4	120	1.5	Brazil,	Steam,		8	205,000	114,950	212,000	305
				15	4.5	4	120	1.8	Brazil,	Electricity,						
Somers No. 4,	Drift,	Gaseous,	Fan,	16	7	7.5	100	1.9	Capell,	Electricity,		6	145,000	93,875	149,740	295
Arnold No. 1,	Drift,	Gaseous,	Fan,	25	9	6	58	1.4	Robinson,	Steam,		3	56,000	45,900	59,800	250
Arnold No. 2,	Shaft,	Gaseous,	Fan,	18	6	8.5	120	3.2	Capell,	Steam,		5	154,000	99,840	160,720	333
Little Squaw,	Drift,	Gaseous,	Fan,	16	6	4	64	0.7	Pollock,	Steam,		2	85,000	20,500	88,200	100
				6	1.2		500	1.1	Clark,	Electricity,						
Peoples Coal Co.																
Pike,	Drift,	Gaseous,	Fan,	23	8	6.5	60	0.7	Lepley,	Steam,		10	235,000	145,050	237,680	265
Naomi Coal Co.																
Naomi,	Slope,	Gaseous,	Fan,	20	6.5	6	99	1.6	Robinson,	Electricity,		5	113,100	73,400	114,400	165
Diamond Coal Co.																
Diamond,	Slope,	Gaseous,	Fan,	10	5	4.5	105	0.6	Robinson,	Steam,		2	36,000	24,500	36,900	121
Sunshine Coal and Coke Co.																
Cyrilla No. 1,	Slope,	Gaseous,	Fan,	14	6	4	62	0.5	Brazil,	Steam,		1	62,500	19,000	63,000	41
Cyrilla No. 2,	Drift,	Gaseous,	Furnace,								42	1	14,900	11,200	15,000	30
Zundell Coal Co.																
Brown,	Drift,	Non-gas.	Fan,	5.5	1.0		350	0.5	Stine,	Electricity,		1	35,000	18,500	35,500	40
Harris-Smith Coal and Coke Co.																
Hill Top,	Drift,	Non-gas.	Furnace,								24	1	12,800	8,500	13,000	52
Echo Coal Co.																
Echo,	Drift,	Non-gas.	Furnace,								30	1	10,000	4,500	10,500	30
Pates Coal Works																
Umpire,	Drift,	Gaseous,	Fan,	5	1.0		300	0.4	Stine,	Electricity,		1	19,000	9,200	19,050	35

‡Reserve fan, to be used in case of emergency.
§Includes day and night shifts.

TABLE I—Continued

Names of Operators and Mines	Kind of opening	Gaseous or non-gaseous	Method of ventilation	Diameter of fan in feet and inches	Width of blades in feet and inches	Depth of blades in feet and inches	Number of revolutions per minute	Water gauge developed—in inches	Name of fan	Power used	Area of furnace bars in square feet	Number of splits of air currents	Number of cubic feet of air per minute entering the mine at inlet	Total quantity of air per minute circulating in all the splits in cubic feet	Number of cubic feet per minute passing out at outlet	Number of persons employed inside
Mt. Hope Coke Co. Mt. Hope,	Drift,	Non-gas.	Fan,	14	6	4	46	0.25	Lepley,	Electricity,		1	30,200	10,000	30,800	45
Peter Wagner Somers No. 1,	Drift,	Gaseous,	*									1	12,000	6,500	12,000	20
Wilson Coal Co. Peacock,	Drift,	Non-gas.	Furnace,								56	1	4,900	2,500	5,000	22
Johnston Coal Co. Johnston,	Drift,	Non-gas.	Fan,	5									†			
Warner and Leonard Coal Co. Kinder,	Slope,	Non-gas.	‡Fan,	12	4.5	3.0										8

*Ventilated by fan at Somers No. 4 mine.
†Mine has been idle since I took charge of the district.
‡The fan has not yet been put in operation.

TABLE J.—Mines using coal cutting machines, power used, geological and local names of seams, thickest and thinnest seams where machines are used, and the approximate number of tons produced by machines

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Heigth of Seam in Inches: Thickest	Heigth of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Monongahela River Consolidated Coal and Coke Co.	Alice,	Drift,	Gaseous,	13	Electricity,	Pittsburg-thick,	84	90	72	377,382
	Apollo,	Drift,		8			84	90	72	252,306
	Little Redstone,	Drift,		7			84	90	72	228,328
	Tremont,	Drift,		5			72	84	72	191,236
	Chamouni,	Slope,		6			84	92	72	207,235
	Knob,	Slope,		6			86	94	76	169,776
	Eclipse,	Drift,		10			70	84	60	179,705
	Albany,	Slope,		5			84	92	72	121,787
	Vigilant,	Slope,		4			86	100	72	164,698
	Crescent,	Slope,		5			86	100	72	131,710
	Fayette City,	Drift,		8			84	90	72	133,213
	Washington,	Drift,		1			84	90	72	7,984
Totals,				78						2,165,360
Vesta Coal Co.,	Vesta Nos. 1 and 2,	Drift,	Gaseous,	9	Compressed Air,	Pittsburg-thick	80	90	72	145,394
	Vesta No. 3,	Drift,		4	Electricity,		78	84	72	138,671
	Vesta No. 4,	Drift,		31	Electricity,		78	96	60	1,371,174
Totals,				44						1,655,239

TABLE J—Continued

Names of Operators	Names of Mines	Kind of opening	Gaseous or non-gaseous	Number of mining machines used	Power used by machines	Geological and local names of seams	Average thickness in inches	Height of Seam in Inches: Thickest	Height of Seam in Inches: Thinnest	Approximate number of tons produced by machines
Pittsburg Coal Co.,	Somers No. 2,	Drift,	Gaseous,	12	Electricity,	Pittsburg-thick	84	108	60	127,317
	Somers No. 4,	Drift,		9			78	84	62	265,010
	Arnold No. 1,	Drift,		5			84	96	72	137,186
	Arnold No. 2,	Shaft,		7			84	96	72	334,983
	Little Squaw,	Drift,		2			72	76	66	96,213
Totals,				35						960,709
Peoples Coal Co.,	Pike,	Drift,	Gaseous,	8	Electricity,	Pittsburg-thick	88	108	78	182,103
Naomi Coal Co.,	Naomi,	Slope,	Gaseous,	11			78	84	66	171,271
Diamond Coal Co.,	Diamond,	Slope,	Gaseous,	3			86	96	72	107,393
Zundell Coal Co.,	Brown,	Drift,	Non-gas.	1			84	96	66	42,600
Pates Coal Works,	Umpire,	Drift,	Gaseous,	2			84	96	72	16,200
Johnston Coal Co.,	Johnston,	Drift,	Non-gas.	1			33	40	20	1,000
Warner and Leonard Coal Co.,	Kinder,	Slope,	Non-gas.	1			84	96	72	400
Grand totals,				184						5,302,275

TABLE 1.—Operators, Location of Mines, Railroads, etc.

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Monongahela River Consolidated Coal and Coke Co.						
Alice,	Fayette,	S. A. Scott,	Pittsburg, 8 Market Street	John Porter,	Roscoe,	P. and L. E.
Apollo,	Fayette,			William Gibson,	Fayette City,	P. and L. E.
Little Redstone,	Fayette,			W. E. Neel,	Fayette City,	P. and L. E.
Tremont,	Fayette,			James McVicker,	Bellevernon,	P. and L. E.
Chamouni,	Fayette,			W. E. Griffith,	Brownsville,	P. and L. E.
Knob,	Washington,			W. E. Griffith,	Brownsville,	P. V. and C.
Eclipse,	Washington,			William Minford,	Elco,	P. V. and C.
Albany,	Fayette,			W. E. Griffith,	Brownsville,	P. and L. E.
Vigilant,	Washington,			W. E. Griffith,	Brownsville,	P. V. and C.
Crescent,	Washington,			W. E. Griffith,	Brownsville,	P. V. and C.
Fayette City,	Fayette,			William Gibson,	Fayette City,	P. and L. E.
Snow Hill,	Fayette,			*John Jackson,	Roscoe,	P. and L. E.
Champion,	Washington,			William Minford,	Elco,	P. V. and C.
Beaumont,	Washington,			*Charles Bradford,	Coal Center,	P. V. and C.
Washington,	Fayette,			*John Brewer,	Gilespie,	P. and L. E.
Vesta Coal Co.						
Vesta Nos. 1, 2, 3 and 4,	Washington,	R. B. Drum,	California,	Harry C. Drum,	Coal Center,	P. V. and C.
Pittsburg Coal Co.						
Somers Nos. 2 and 4,	Westmoreland	G. W. Schluederberg,	Pittsburg, 232 Fifth Avenue	Thomas Eastman,	Pricedale,	P. and L. E.
Arnold Nos. 1 and 2,	Fayette,			Thomas Cavanaugh,	Fayette City,	P. and L. E.
Little Squaw,	Washington,			John King,	Coal Bluff,	P. V. and C.
Peoples Coal Co.						
Pike,	Fayette,	George W. Thomas,	Pittsburg,	E. E. Girod,	Brownsville,	Monongahela
Naomi Coal Co.						
Naomi,	Fayette,	J. D. O'Neil,	Pittsburg,	W. J. Eicher,	Bellevernon,	P. and L. E.
Diamond Coal Co.						
Diamond,	Washington,	A. H. Stolvenback,	Pittsburg,	S. V. Hartman,	West Brownsville,	P. V. and C.

*Leaseholders under the supervision of the Monongahela River Consolidated Coal and Coke Co.

TABLE 1.—Continued

Names of Operators and Mines	County	Name of General Superintendent	Post Office	Name of Superintendent	Post Office	Railroad to Mine
Sunshine Coal and Coke Co.						
Cyrilla Nos. 1 and 2,	Fayette,	John Rocks,	Masontown,			P. V. and C.
Zundell Coal Co.						
Brown,	Westmoreland,	Earl Zundell,	Pricedale,			P. and L. E.
Harris-Smith Coal and Coke Co.						
Hill Top,	Fayette,	A. K. Smith,	Fayette City,			P. and L. E.
Echo Coal Co.						
†Echo,	Fayette,	James Nelson,	Fayette City,			P. and L. E.
Pates Coal Works						
Umpire,	Fayette,	John Pates,	Monongahela,	Charles C. McVicker,	Brownsville,	Monongahela
Mt. Hope Coke Co.						
Mt. Hope,	Fayette,	Isaac Taylor,	Uniontown,			P. V. and C.
Peter Wagner						
Somers No. 1,	Fayette,	Peter Wagner,	Bellevernon,			P. and L. E.
Wilson Coal Co.						
†Peacock,	Westmoreland,	M. M. Wilson,	Bellevernon,			P. and L. E.
Johnston Coal Co.						
Johnston,	Westmoreland,	G. W. Johnston,	Bellevernon,			P. and L. E.
Warner and Leonard Coal Co.						
Kinder,	Washington,	John E. Leonard,	West Brownsville,			P. V. and C.

†Abandoned.

TABLE 2.—Number of tons of coal mined and tons of coke produced, number of days worked, number of persons employed, number killed and injured, quantity of powder, dynamite and so-called safety explosives used, etc.

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives: Number of pounds of powder used	Explosives: Number of pounds of dynamite used	Explosives: Number of pounds of so-called safety explosives used	Number of horses and mules
Monongahela River Consolidated Coal and Coke Co.																
Alice,	Fayette,	498,546	1,780			500,326			280	470			70,275	500		36
Apollo,	Fayette,	336,420	947	266		337,633			239	371	1		38,750			26
Little Redstone,	Fayette,	290,980	8,437	43		299,460			231	285	3		38,125			24
Tremont,	Fayette,	287,926	2,667			290,593			235	325		2	33,750			28
Chamouni,	Fayette,	286,264	3,447	15		289,726			221	280	2	3	8,750		10,200	17
Knob,	Washington,	264,535	4,940	202		269,677			244	253	1	5	6,250		10,000	17
Eclipse,	Washington,	263,875	2,507	239		266,621			176	381	1		40,825	400		21
Albany,	Fayette,	205,178	2,358	284		207,820			186	266	1				16,000	18
Vigilant,	Washington,	200,804	3,955	2,088		206,847			292	214	1		29,125			23
Crescent,	Washington,	288,013	1,713			289,726			275	331	2	4	48,750	500		
Fayette City,	Fayette,	197,676	501			198,177			163	287	1	4	21,800			22
Snow Hill,	Fayette,	100,368	1,800			102,168			280	93			12,000	50		6
Champion,	Washington,	41,634	178	65		41,877			261	36	1		6,375			3
Beaumont,	Washington,	31,690	400			32,090			255	40		1	5,000			3
Washington,	Fayette,	23,168	788			23,956			181	56	1	1	3,422			3
Totals,		3,317,077	36,418	3,202		3,356,697				3,688	15	20	363,197	1,450	36,200	247
Vesta Coal Co.																
Vesta Nos. 1 and 2,	Washington,	433,075	14,097	1,565		448,737			282	391		4	47,100			23
Vesta No. 3,	Washington,	193,639	2,009			195,648			142	290		2			32,273	20
Vesta No. 4,	Washington,	1,668,822	23,035	2,240		1,694,097			280	1,195	7	11	8,344		140,000	
Totals,		2,295,536	39,141	3,805		2,338,482				1,876	7	17	55,444		172,273	43

TABLE 2—Continued

Names of Operators and Mines	County	Number of tons of coal shipped to market	Number of tons used at mines for steam and heat	Number of tons sold to local trade and used by employes	Number of tons used in manufacture of coke	Total production of coal in tons	Total production of coke in tons	Number of coke ovens	Number of days worked	Number of employes	Number of fatal accidents	Number of non-fatal accidents	Explosives			Number of horses and mules
													Number of pounds of powder used	Number of pounds of dynamite used	Number of pounds of so-called safety explosives used	
Pittsburg Coal Co.																
Somers No. 2,	Westmoreland,	158,294	9,454	1,466		169,214			106	387			6,170	225	10	28
Somers No. 4,	Westmoreland,	348,973				348,973			242	352	1	1	13,610	125	140	27
Arnold No. 1,	Fayette,	165,018	1,612			166,630			148	273	1	2	18,608		776	33
Arnold No. 2,	Fayette,	388,411	8,345	1,985		398,741			249	376	1		45,495		9,099	28
Little Squaw,	Washington,	169,464	1,719	565		171,748			261	116		1	11,000	115		12
Totals,		1,230,160	21,130	4,016		1,255,306				1,504	3	4	94,883	465	10,025	128
Peoples Coal Co.																
Pike,	Fayette,	273,755	8,316			282,071			234	311		5			28,000	20
Naomi Coal Co.																
Naomi,	Fayette,	221,328	1,905	324		223,557			217	234	1				19,000	12
Diamond Coal Co.																
Diamond,	Washington,	139,091	36,400	1,420		176,911			270	150	1	4	34,600	280		10
Sunshine Coal and Coke Co.																
Cyrilla Nos. 1 and 2,	Fayette,				52,818	52,818	35,212	142	184	122		2			15,000	13
Zundell Coal Co.																
Brown,	Westmoreland,	50,900		615		51,515			243	55		1	8,425	30		4
Harris-Smith Coal and Coke Co.																
Hill Top,	Fayette,	41,601	90	473		42,164			210	45			2,800			5

Echo Coal Co.																
Echo,	Fayette,	37,040	64	86	.....	37,190	.....	.....	224	26	....	....	4,760	.....	.....	2
Pates Coal Works																
Umpire,	Fayette,	30,451	.....	150	.....	30,601	.....	.....	354	40	....	....	4,500	10	10	3
Mt. Hope Coke Co.																
Mt. Hope,	Fayette,	.....	45	115	25,680	25,840	17,701	75	126	49	....	....	.....	100	2,000	2
Peter Wagner																
Somers No. 1,	Fayette,	16,171	74	.....	.....	16,245	.....	.....	271	23	....	....	1,625	.....	.....	3
Wilson Coal Co.																
Peacock,	Westmoreland,	14,000	.....	40	.....	14,040	.....	.....	97	28	1	....	3,000	.....	.....	2
Johnston Coal Co.																
Johnston,	Westmoreland,	2,557	.....	500	.....	3,057	.....	.....	95	50	....	....	1,200	.....	.....	3
Warner and Leonard Coal Co.																
Kinder,	Washington,	400	50	.....	.....	450	.....	.....	25	11	....	....	80	.....	.....	.....
Grand totals,		7,670,067	143,633	14,746	78,498	7,906,944	52,913	217	.....	8,212	28	53	574,514	2,335	282,508	497

TABLE 2.—Part 2

Names of Operators	County	Number of Boilers					Locomotives			Number of steam engines of all classes	Total horse power	Number of pumps delivering water to surface	Capacity in gallons per minute	Quantity delivered to surface per minute—gallons	Number of electric dynamos	Number of air compressors
		Cylindrical	Horse power	Tubular	Horse power	Total horse power	Steam	Air	Electric							
Monongahela River Consolidated Coal and Coke Co.,	Fayette Washington	20	858	40	5,440	6,298	.....	.....	25	53	6,090	31	6,840	4,250	16	.....
Vesta Coal Co.,	Washington,	8	645	23	5,775	6,420	.....	.....	35	35	9,435	24	2,150	1,225	4	5
Pittsburg Coal Co.,	Westmoreland Fayette, Washington	1	40	17	2,240	2,280	.....	.....	8	14	2,246	21	3,330	2,280	7	.....
Peoples Coal Co.,	Fayette,	1	75	10	1,500	1,575	.....	.....	7	15	1,348	3	55	9	5	.....
Naomi Coal Co.,	Fayette,	.....	.....	3	450	450	.....	.....	8	1	50	3	800	650	2	.....
Diamond Coal Co.,	Washington,	3	225	1	125	350	.....	.....	1	5	300	3	220	150	2	.....
Sunshine Coal and Coke Co.,	Fayette,	.....	.....	1	100	100	.....	.....	.....	2	150	3	300	150	.....	.....
Zundell Coal Co.,	Westmoreland,	.....	.....	1	15	15	.....	.....	.....	1	12	1	65	60	.....	.....
Harris-Smith Coal and Coke Co.,	Fayette,	.....	.....	2	40	40	.....	.....	.....	1	25	1	250	100	.....	.....
Mt. Hope Coke Co.,	Fayette,	.....	.....	1	30	30	.....	.....	1	.....	.....	1	50	20	1	.....
Peter Wagner,	Fayette,	.....	.....	1	80	80	.....	.....	.....	1	80	.....	.....	.....	.....	.....
Warner and Leonard Coal Co.,	Washington,	.....	.....	1	150	150	.....	.....	.....	1	75	.....	.....	.....	.....	.....
Totals,		33	1,843	101	15,945	17,788	.....	.....	85	129	19,811	91	14,060	8,894	37	5

TABLE 3.—Number of Each Class of Employes Inside and Outside of Mines

Names of Operators	County	Inside												Outside								
		Mine foremen	Assistant mine foremen	Fire bosses	Miners	Machine runners	Machine loaders	Machine scrapers	Drivers and runners	Doorboys and helpers	Company men	All other employes	Total inside	Superintendents	Foremen	Blacksmiths and carpenters	Engineers and firemen	Coke employes	Bookkeepers and clerks	All other employes	Total outside	Grand total inside and outside
Monongahela River Consolidated Coal and Coke Co.,	Fayette, Washington	15	1	44	972	84	1,537	84	257	45	267	------	3,306	12	11	50	67	----	16	226	382	3,688
Vesta Coal Co.,	Washington,	4	8	12	399	44	842	44	139	5	177	20	1,694	2	4	23	31	----	5	117	182	1,876
Pittsburg Coal Co.,	Westmoreland, Fayette, Washington	5	----	19	393	36	596	36	97	16	146	15	1,359	2	2	19	19	----	8	95	145	1,504
Peoples Coal Co.,	Fayette,	1	1	3	90	10	99	10	17	2	42	------	275	1	----	4	7	----	2	22	36	311
Naomi Coal Co.,	Fayette,	1	----	4	46	7	70	7	20	4	34	------	193	1	----	2	4	----	1	33	41	234
Diamond Coal Co.,	Washington,	1	----	2	15	4	74	4	11	5	3	7	126	1	----	3	4	----	1	15	24	150
Sunshine Coal and Coke Co.,	Fayette,	2	----	----	55	------	------	------	6	1	14	------	78	1	1	3	2	30	1	6	44	122
Zundell Coal Co.,	Westmoreland,	1	----	----	3	1	28	1	4	------	7	------	45	2	1	2	1	----	1	3	10	55
Harris-Smith Coal and Coke Co.,	Fayette,	1	----	----	29	------	------	------	3	2	------	1	36	1	----	1	1	----	----	6	9	45
Echo Coal Co.,	Fayette,	1	----	----	20	------	------	------	2	------	------	------	23	----	----	1	----	----	1	1	3	26
Pates Coal Works,	Fayette,	1	1	----	------	2	20	2	3	------	1	------	30	1	----	1	----	----	----	8	10	40
Mt. Hope Coke Co.,	Fayette,	1	----	----	27	------	------	------	2	------	4	------	34	1	1	1	1	10	1	------	15	49
Peter Wagner,	Fayette,	1	----	----	17	------	------	------	2	------	------	------	20	1	----	----	1	----	----	1	3	23
Wilson Coal Co.,	Westmoreland,	1	----	----	20	------	------	------	1	------	2	------	24	1	1	1	----	----	1	------	4	28
Johnston Coal Co.,	Westmoreland,	1	----	----	22	1	4	1	2	1	10	------	42	1	----	1	----	----	1	5	8	50
Warner and Leonard Coal Co.,	Washington,	----	----	----	------	1	6	1	------	------	------	------	8	1	----	1	1	----	----	------	3	11
Totals,		37	11	84	2,108	190	3,276	190	566	81	707	43	7,293	29	21	113	139	40	39	538	919	8,212

TABLE 3.—Part 2

Names of Operators	County	Average Number of Days Worked												
		January	February	March	April	May	June	July	August	September	October	November	December	Total
Monongahela River Consolidated Coal and Coke Co.,	Washington, Fayette	16	17	23	21	24	21	17	15	17	20	24	20	235
Vesta Coal Co.,	Washington,	17	13	12	14	15	17	23	26	24	24	24	26	235
Pittsburg Coal Co.,	Westmoreland, Fayette, Washington	12	10	14	13	15	18	22	21	20	15	20	21	201
Peoples Coal Co.,	Fayette,	26	18	------	23	26	26	16	12	12	25	25	25	234
Naomi Coal Co.,	Fayette,	8	23	11	9	9	25	25	25	21	20	20	21	217
Diamond Coal Co.,	Washington,	19	22	27	20	21	22	17	26	23	24	25	24	270
Sunshine Coal and Coke Co.,	Fayette,	------	------	------	------	2	26	26	26	26	26	26	26	184
Zundell Coal Co.,	Westmoreland,	------	20	27	26	26	24	22	16	19	17	21	25	243
Harris-Smith Coal and Coke Co.,	Fayette,	17	21	25	23	18	17	23	20	13	14	19	------	210
Echo Coal Co.,	Fayette,	------	15	26	16	15	24	19	21	21	19	24	24	224
Pates Coal Works,	Fayette,	25	24	31	30	30	30	31	31	30	31	30	31	354
Mt. Hope Coke Co.,	Fayette,	------	------	------	------	------	------	------	24	25	26	26	25	126
Peter Wagner,	Fayette,	22	18	26	24	11	25	24	26	23	22	25	25	271
Wilson Coal Co.,	Westmoreland,	12	10	11	13	6	10	5	10	6	3	5	6	97
Johnston Coal Co.,	Westmoreland,	26	24	24	21	------	------	------	------	------	------	------	------	95
Warner and Leonard Coal Co.,	Washington,	------	------	------	------	------	------	------	------	------	------	------	25	25

TABLE 4.—Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 5	James Moody,	American,	Motorman,	27	M.	1	1	Vesta No. 4,	Washington,	Instantly killed by mine cars on entry. It is supposed that he was reaching for the brake and fell under the loaded cars, which passed over his body.
9	Joseph Lachia,	Polish,	Loader,	28	S.			Vesta No. 4,	Washington,	Instantly killed by fall of slate at face of room while picking slate bands from the coal.
11	Constanti Polis,	Italian,	Loader,	35	M.	1	2	Vesta No. 4,	Washington,	Instantly killed by being electrocuted. He was repairing the motorman's trolley pole at the entrance of his room, and after completing the job he raised up against the trolley wire.
20	John Sheman,	Slavonian,	Loader,	21	S.			Vesta No. 4,	Washington,	Fatally injured. He was bringing three cars down an entry and noticed a car off the track ahead of him. When he attempted to get out of the car he came in contact with the trolley wire and received an electric shock and fell between car and rib. He died three hours later.
30	Charles Nemish,	Russian,	Loader,	38	M.	1	4	Fayette City,	Fayette,	Instantly killed by fall of slate at face of room.
	John Morro,	Italian,	Miner,	26	S.			Knob,	Washington,	Instantly killed by fall of roof on pillar work while pulling loose coal from the side. He failed to post.
Feb. 15	Dick Capola,	Italian,	Loader,	25	S.			Vesta No. 4,	Washington,	Fatally injured by fall of slate at face of room while loading his car. He died the following day.
23	John Starcheck,	Polish,	Loader,	23	S.			Albany,	Fayette,	Instantly killed by fall of slate at face of entry while taking the slate down.
March 3	Herman Rahnke,	German,	Miner,	57	M.	1	1	Champion,	Washington,	Instantly killed by fall of slate in his working place while removing a post.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
March 5	John Slovinsky,	Polish,	Loader,	63	M.			Diamond,	Washington,	Fatally injured by fall of slate near face of room. He was loading a car of coal close to the left side of the rib in his room, which was well posted, but owing to the wet roof and a slip in the slate between post and rib, the slate fell. He died a few minutes after he was removed from under the slate.
10	James Boyle,	Scotch,	Miner,	37	S.			Apollo,	Fayette,	Fatally injured by fall of coal at face of room while undermining. He failed to set sprags under the coal. He died on the way to the hospital.
April 17	Arthur Palfreyman,	English,	Miner,	67	S.			Peacock,	Westmoreland,	Instantly killed by fall of coal at face of room while undermining. He failed to set sprags under the coal.
22	Frank Heckler,	German,	Loader,	50	M.	1	6	Vesta No. 4,	Washington,	Instantly killed by being electrocuted. He was carrying his drill on his shoulder and touched the electric wire with it.
24	Frank Potash,	Russian,	Loader,	44	M.	1	2	Vigilant,	Washington,	Instantly killed by fall of slate. He had the rear end of the car under the slate and removed a post and then stood up on the bumper of the car to place lumps, when the slate fell and knocked him under it.
May 6	Joseph Torentat,	Austrian,	Loader,	33	M.	1	6	Little Redstone,	Fayette,	Instantly killed by fall of coal at face of room. He fired a butt shot and the coal did not come down and when he started to shear it the coal fell on him.
8	William Davis,	American,	Miner,	19	S.			Arnold No. 2,	Fayette,	Instantly killed by fall of slate at face of working place while taking the slate down.

May	28	Andy Shebeck,	Slavonian,	Loader,	47	M.	1	2	Chamouni,	Fayette,	Fatally injured by fall of coal at face of working place while loading a car of coal. He died 12 hours later.
June	19	Joseph Aldo,	Italian,	Miner,	23	S.			Chamouni,	Fayette,	Instantly killed by fall of roof at face of working place. After he had taken out a stump of coal and finished loading his last car he sat down to rest under the roof, when it fell on him.
July	7	Floyd Lynn,	American,	Blacksmith,	22	S.			Little Redstone,	Fayette,	Fatally injured by haulage rope coming off the sheave. He was standing on the inside of the curve repairing a guide sheave when it came off throwing him against a building. Outside.
	30	Mike Nemich,	Slavonian,	Loader,	22	S.			Washington,	Fayette,	Fatally injured by fall of roof coal at face of room. He fired a shot, which blew out some timbers, and before the place was cleared of smoke he went into the room to see the effect of the shot, when the roof fell on him.
Sept.	3	John Tremboss,	Slavonian,	Loader,	21	M.	1		Somers No. 4,	Westmoreland,	Instantly killed by fall of slate at face of room. He was pulling some loose coal which fell and knocked out a post from under the slate that fell on him.
	28	Angelo Boldicky,	Italian,	Miner,	34	M.	1	2	Arnold No. 1,	Fayette,	Instantly killed by fall of slate on pillar work. The slate was not sufficiently posted and broke over the coal.
Nov.	17	Vedict Dudop,	Polish,	Loader,	26	S.			Naomi,	Fayette,	Instantly killed by fall of slate at face of entry. He charged a hole in the slate to blast it down and just as he finished tamping it the slate fell on him. He removed the posts too soon.
	22	Frank Karlit,	American,	Driver,	19	S.			Eclipse,	Washington,	Instantly killed by mine car. He was driving a mule with one loaded car on a nearly level track 150 feet inside of the pit mouth and was found dead under the car on the entry. It appears that he was riding on the front end and fell under the car.
Dec.	3	Nick Dorotz,	Italian,	Labor boss,	31	M.	1	2	Vesta No. 4,	Washington,	Fatally injured by blast of roof rock. He was blasting some roof and did not get out of the entry when he fired the blast and a piece of rock struck him. He died soon after he reached the hospital.
	15	Vincent Parentie,	Austrian,	Miner,	30	S.			Little Redstone,	Fayette,	Instantly killed by mine cars on haulage road. He was walking up the side-track, and as the trip entered the rope moved from between the tracks over to the empty track and struck him and knocked him down. Before he could help himself the trip struck him.

TABLE 4.—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Number of widows	Number of orphans	Name of Mine	County	Nature and Cause of Accident in Brief
Dec. 18	John Woolridge,	English,	Loader,	54	M.	1	2	Crescent,	Washington,	Instantly killed by mine car. In loosening the brake of a car about six feet from the face of the coal in his room to drop it down against the face, and he walked backwards against a post that was under the slate, and he was squeezed between post and car.
22	John Miller,	Italian,	Trip-runner,	25	S.			Crescent,	Washington,	Fatally injured by mine car. He was coupling a trip of loaded cars on the side track, and while getting out from between the cars on the tight side he was caught between car and rib. Died two days later.

TABLE 5.—Non-Fatal Accidents Inside and Outside of Mines

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Jan. 2	David Victor,	American,	Miner,	54	M.	Cyrilla No. 2,	Fayette,	Face and hands burned by the ignition of coal dust from a blast of dynamite blowing through a rib between two entries.
	James McKnight,	American,	Miner,	24	M.			
8	John Lupna,	Russian,	Miner,	30	M.	Diamond,	Washington,	Arm and three ribs broken by a shot blowing through the rib which forced the coal and slate against him.
11	Walter Galetski,	Russian,	Miner,	30	M.	Diamond,	Washington,	Collar bone broken by fall of coal at face of room while knocking coal.
16	Joseph Maco,	Belgian,	Miner,	33	S.	Vesta No. 4,	Washington,	Squeezed about the body by fall of slate at face of room while loading coal.
19	Joseph Lesneck,	Slavonian,	Driver,	37	M.	Diamond,	Washington,	Squeezed about the body by being caught between water car and mule on the entry, while riding on the front end of the car.
20	Buzze Rossell,	American,	Driver,	28	M.	Chamouni,	Fayette,	Leg broken. The mule stepped on the end of a post that was lying on the track between the rails and the other end of post struck the driver below the knee.
	Allen Layton,	American,	Pumper,	54	M.	Fayette City,	Fayette,	Leg broken by water car. The car ran against him while he was closing a valve along the side of the entry in front of the pump house. The noise from the pump prevented him from hearing the approaching car.
29	Otto Hereckson,	Finnish,	Driver,	17	S.	Vesta No. 1,	Washington,	Hip dislocated by being caught between car and post in room.
Feb. 1	Angelo Perdish,	Italian,	Miner,	23	S.	Knob,	Washington,	Leg broken by fall of roof coal while he was on the gob.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Feb. 3	Mike Buschec,	Slavonian,	Loader,	23	S.	Knob,	Washington,	Face and hands burned by a premature blast while they were tamping it. The needle or tamping bar came in contact with a sulphur ball, causing a spark which ignited the powder.
	Frank Shoper,	Slavonian,	Loader,	26	S.			
6	Steve Farbabi,	Hungarian,	Loader,	23	M.	Knob,	Washington,	Thigh bone broken by fall of slate at the face of his room.
19	Joseph Bissel,	American,	Miner,	56	M.	Chamouni,	Fayette,	Head slightly cut by fall of slate at face of room.
26	John Perri,	Italian,	Miner,	36	M.	Little Squaw,	Washington,	Leg broken by fall of coal and slate on pillar work.
March 1	Joseph Butsek,	Hungarian,	Loader,	32	M.	Crescent,	Washington,	Leg broken by fall of slate at face of room. He started to load coal from under the slate without posting it.
April 3	John Kosarik,	Slavonian,	Loader,	32	M.	Vesta No. 4,	Washington,	Leg and arm broken by fall of slate at face of room.
9	Charles Package,	Slavonian,	Miner,	36	M.	Fayette City,	Fayette,	Leg broken by fall of slate at face of entry.
20	Frank Washcoat,	Hungarian,	Miner,	25	S.	Pike,	Fayette,	Compound fracture of the leg by fall of coal while shoveling under a butt cut.
24	Paul Botts,	Hungarian,	Miner,	45	M.	Pike,	Fayette,	Leg broken and body squeezed by fall of roof while loading a car of coal.
May 1	Henry Peters,	German,	Miner,	37	M.	Vesta No. 4,	Washington,	Leg and rib broken by fall of roof at face of room while knocking coal.
12	Stanley Milkos,	Russian,	Miner,	22	S.	Fayette City,	Fayette,	Leg fractured by being caught between loaded cars. He jumped on a moving trip as it was leaving the side track, and when the cars bumped together his leg was caught between them.
	Steve Oswalt,	Hungarian,	Loader,	29	M.	Vesta No. 4,	Washington,	Foot crushed by fall of slate at face of room.

May	22	Mike Minko,	Hungarian,	Miner,	32	M.	Vesta No. 4,	Washington,	Leg crushed by fall of slate at face of entry while he was standing on the bumper of the car.
	28	Joseph Meshey,	German,	Motorman,	22	S.	Vesta No. 4,	Washington,	Leg crushed by a motor running against his motor on main entry.
		Andrew Quick,	English,	Miner,	42	M.	Chamouni,	Fayette,	Leg broken by fall of coal at face of room.
June	15	James Restue,	Italian,	Loader,	38	M.	Tremont,	Fayette,	Body bruised by fall of slate from the face of his room while loading a car of coal.
		William McNaughton,	American,	Driver,	22	S.	Pike,	Fayette,	Arm broken by being caught between car and rib. He did not stop at the bottom of the entry to see if he had a clear track, and collided with a trip from this entry.
	17	William McCune,	American,	Motorman,	23	S.	Pike,	Fayette,	Head slightly cut by fall of roof. His motor jumped the rails at a curve and knocked out some posts which liberated the loose roof.
		Paul Kohoot,	Slavonian,	Trip-runner,	18	S.	Pike,	Fayette,	Back and leg injured by fall of roof. He was on the motor with McCune.
	26	Samuel Drum,	English,	Asst. Mine Foreman	57	M.	Vesta No. 1,	Washington,	Arm injured by fall of roof at the face of room while he was instructing a workman.
		Angelo Nickeluce,	Italian,	Miner,	35	M.	Vesta No. 1,	Washington,	Two ribs broken by fall of roof while on his way to work.
July	14	George Hertzog,	American,	Miner,	50	M.	Beaumont,	Washington,	Leg broken by fall of coal at face of room while undermining the coal.
	22	William Beverage,	American,	Motorman,	34	M.	Vesta No. 4,	Washington,	Leg broken by being caught between car and motor. He did not notice a car on the entry and ran into it.
Aug.	2	Thomas Keep,	Lithuanian,	Loader,	26	M.	Crescent,	Washington,	Burned about the face and the sight of one eye destroyed by a premature blast of black powder while he was tamping it.
		Jesse Crumpton,	American,	Trip runner,	22	S.	Vesta No. 4,	Washington,	Foot crushed by electric motor running over it while he was getting on the motor on main entry.
	4	George Leeman,	American,	Loader,	27	M.	Arnold No. 1,	Fayette,	Leg broken by fall of roof coal at face of room.
		Arthur Johnston,	American,	Trip runner,	24	S.	Arnold No. 1,	Fayette,	Foot crushed by electric motor passing over it. He got off the empty cars and stepped over on the loaded track in front of the motor on the side track.
	11	William Dryer,	Hungarian,	Driver,	28	S.	Tremont,	Fayette,	Bruised about the body by being caught between car and rib on butt entry. While attempting to stop his trip of loaded cars after being flagged, he got off the cars on the tight side.

TABLE 5—Continued

Date of accident	Name of Person	Nationality	Occupation	Age	Married or single	Name of Mine	County	Nature and Cause of Accident in Brief
Aug. 23	Edward Bowman,	American,	Miner,	39	M.	Brown,	Fayette,	Nose badly injured by fall of slate on pillar work. The slate struck him on the back of the head and knocked his face against the car he was loading.
Sept. 1	Henry Matsin,	Finnish,	Miner,	19	S.	Diamond,	Washington,	Leg broken by fall of slate at face of room.
13	Mike Urupta,	Slavonian,	Loader,	21	S.	Vesta No. 4,	Washington,	Thigh dislocated, face cut and body bruised by fall of slate at face of room while posting the slate.
25	Paul Supuchack,	Hungarian,	Loader,	41	M.	Vesta No. 4,	Washington,	Arm broken and face and hands cut by flying coal from a hanging blast. He waited about ten minutes for the blast to explode, then went to investigate, when it exploded.
Oct. 15	George Galletti,	Italian,	Miner,	36	M.	Knob,	Washington,	Leg broken and head cut by fall of slate at face of room.
28	Andrew Marcovy,	Polish,	Loader,	26	S.	Vesta No. 3,	Washington,	Leg broken by fall of slate at face of entry.
29	Andrew Beranik,	Slavonian,	Machine runner,	35	M.	Fayette City,	Fayette,	Squeezed about the thighs by being caught between motor and post. He was riding out of the mine on top of the motor and fell off between motor and post.
Nov. 1	W. Hewey,	American,	Machine runner,	39	M.	Crescent,	Washington,	Foot crushed between mining machine and the mining machine truck. He did not have the truck far enough in the room neck to clear the cars passing up and down the entry and a motor pushed a car against truck while he was between the truck and mining machine.
11	William Tompcase,	Russian,	Loader,	21	S.	Vesta No. 3,	Washington,	Ankle broken by fall of slate at face of room.

Nov.	13	John Kravats,	Slavonian,	Miner,	21	S.	Washington,	Washington,	Leg broken by fall of slate at the entrance of his room while sitting under it.
	20	P. Risher,	American,	Loader,	22	S.	Vesta No. 4,	Washington,	Leg broken by fall of slate at face of room.
	23	John Harcsek,	Slavonian,	Miner,	35	M.	Vesta No. 1,	Washington,	Leg broken by fall of roof on pillar work while he was knocking coal.
	27	John Alexander,	Polish,	Miner,	54	M.	Somers No. 4,	Westmoreland,	Thigh dislocated and face cut by fall of slate on pillar work.
Dec.	18	George Pikons,	Slavonian,	Trip runner,	22	S.	Crescent,	Washington,	Leg and arm broken by mine car. He was on the front end of a trip of empty cars that the motor was pushing up an entry. The cars ran into an open switch to a room and he was thrown under the cars.

CONDITIONS OF MINES

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY.

Alice, Little Redstone, Tremont, Washington, Snow Hill, Chamouni, Albany, Knob, Beaumont, Crescent, Vigilant, Eclipse, Champion, Fayette City and Apollo were all poorly ventilated. The ventilation lacks ample reserve power at some of the mines, while at others the ventilators are of insufficient capacity to produce and circulate brisk air currents near the face of the workings. At some of the mines the ventilator was ample, but the air currents did not reach the face of the workings in sufficient volume, due to obstructed air courses, poorly constructed stoppings, and numerous doors, all of which tend to short circuit the air current.

The hauling roads in many portions of the mines were obstructed along the sides of the entries, making it dangerous for persons in passing the cars and motors while they are in motion.

Shelter holes were not provided at all places required by the mine law, and what few there were, in many cases, were found to be filled or obstructed by dirt.

The drainage of the mines was in a fair condition. Most of these mines are of a very damp nature, but in a few of them portions are dry and dusty, and these portions are sprinkled with water by the water car system, and the accumulations of fine coal are removed from the mines.

Permissible explosives are used exclusively in Albany, Knob, and Chamouni mines, and in portions of Apollo, Fayette City and Alice mines.

It is only proper to state that the officials of these mines have not refused to comply with my recommendations to better the conditions, such as new fans, sinking air shafts, making additional air courses, building overcasts and incombustible stoppings, making shelter holes and cleaning all obstruction from the sides of the hauling roads. All pillar work will be worked with locked safety lamps. I am of the opinion, that if this work is kept up along the present lines in my next report I shall be able to state that the mines are in first-class condition.

VESTA COAL COMPANY

Vesta Nos. 1 and 2.—The north side of the mine is very wet and muddy, due to many openings to the surface. Owing to the damp character of the mine no system is used to sprinkle the dust. The ventilation was fair.

Vesta No. 3.—The drainage was good, but the ventilation was poor. I have been informed by the superintendent, since my inspection of this mine, that he has changed mine foremen and that the ventilation has been increased in the workings and so divided as to meet my requirements. No provision is made to take care of the dust.

Permissible explosives are used to blast the coal.

Vesta No. 4.—The drainage was good. The ventilation was good in some parts of the mine, while in other parts it was very weak, due to many doors and defective stoppings, which cause a short circuit of the air current. There are five fans at this mine, but only four are in operation; one fan, a 20 x 8 foot Clifford Capell, is held in reserve in case of emergency.

There is no provision made to saturate the dust. Permissible explosives are used exclusively to blast the coal.

and reported for the night shift, and also that shelter holes were not

And found that this mine was not properly examined by the fire bosses and reported for the night shift, and also that shelter holes were not provided at all places required by the mine law. Upon my request the proper examinations are made and they are making the necessary shelter holes.

A slight mine fire occurred in this mine during the month of July at the junction of fifteen entries, causing the sealing off of about seven miles of entries for about six weeks. The cause of the fire is unknown.

Open lights are used on pillar work, and I have recommended that safety lamps be used on that kind of work. I am informed by the superintendent that 250 Wolf lamps have been purchased for that purpose.

PITTSBURG COAL COMPANY

Arnold No. 1.—Drainage and ventilation in reasonably good condition. This mine receives about 20,000 cubic feet of air per minute from Arnold No. 2 mine. On pillar work safety lamps and permissible explosives are used. The dust is saturated by the water car system.

Arnold No. 2.—Drainage and ventilation in excellent condition. On pillar work locked safety lamps and permissible explosives are used. The dust is saturated by exhaust steam and the water car systems. All stoppings in this mine are made of brick.

Somers Nos. 2 and 4.—Drainage and ventilation in excellent condition. The greater portion of these mines is damp, and the dry portions are sprinkled with water by the water car system.

Little Squaw.—General condition fairly good. The mine is nearly exhausted. It is of a wet character and does not require a watering system to sprinkle the dust.

PEOPLES COAL COMPANY

Pike.—On my first inspection the ventilation was not in a satisfactory condition, and the sides of the entries in portions of the mine were obstructed by slate, etc. But on my last inspection I found the ventilation in excellent condition, and the system of distributing the air currents a good one, also the sides of the entries were cleaned, and all electric wires removed to the intake air currents. In all pillar and entry work locked safety lamps are used and permissible explosives are used exclusively in blasting the coal, and all shots are loaded and fired by shot firers.

The dust is saturated by water pipe system and accumulations of fine coal removed from the mine.

NAOMI COAL COMPANY

Naomi.—Ventilation in fair condition; drainage good. The dust is saturated by the water car system.

DIAMOND COAL AND COKE COMPANY

Diamond.—Drainage and ventilation fairly good. Portions of the mine are wet, and the water car system is used to saturate the dust in the dry portions.

SUNSHINE COAL AND COKE COMPANY

Cyrilla No. 1.—Ventilation fairly good. The drainage in the left side of the mine is defective. There seems to be a very poor discipline at this mine. There is no provision to take care of the dust; however, the mine is damp.

Cyrilla No. 2.—Ventilation fair; drainage good. It is connected with the old Umpire mine. No provision made to take care of the dust.

ZUNDELL COAL COMPANY

Brown.—Ventilation good; drainage defective. On account of the wet character of this mine, no system is required to take care of dust.

MT. HOPE COKE COMPANY

Mt. Hope.—Ventilation and drainage good. This is a new mine that began operation this year. No provision made to take care of the dust.

HARRIS-SMITH COAL AND COKE COMPANY

Hill Top.—Ventilation and drainage defective. The dust does not require a system to saturate it on account of the wet condition of the mine.

WILSON COAL COMPANY

Peacock.—Ventilation and drainage very bad. The mine is very nearly exhausted and will not come under the law in the future.

ECHO COAL COMPANY

Echo.—Drainage and ventilation defective. The mine is nearly exhausted and will not come under the law in the future.

JOHNSTON COAL COMPANY

Johnston.—Not in operation.

WARNER AND LEONARD COAL COMPANY

Kinder.—A new slope mine located at West Brownsville Junction in Washington County. Not under the law. Coal was just reached and mined during the month of December. The connection with the air shaft has not yet been made.

PATES COAL WORKS

Umpire.—Drainage and ventilation in excellent condition.

PETER WAGNER

Somers No. 1.—This mine is leased from the Pittburg Coal Company and is nearly exhausted. The drainage was defective. Ventilation was fairly good.

IMPROVEMENTS

MONONGAHELA RIVER CONSOLIDATED COAL AND COKE COMPANY

Crescent.—An eight-foot two-stage Stine fan has been installed. Twenty-six masonry stoppings and twenty-six brick overcasts have been built. A brick motor repair shop and a car repair shop have been built and equipped with machinery.

Knob.—Enlarged and cleaned up 1500 feet of the return airway, and built seven masonry stoppings.

Albany.—Built two incombustible overcasts.

Chamouni.—Built three masonry overcasts.

Alice.—Built eighteen masonry stoppings and three overcasts, and made an additional air course parallel to the main entry 3028 yards in length. Installed one Thompson-Ryan generator, 150 K. W. 500 volts. A Sirocco fan is being erected, capable of exhausting 200,000 cubic feet of air per minute; it is driven by a Westinghouse electric 200 H. P. motor.

Little Redstone.—Built thirty-three concrete stoppings and one overcast.

Apollo.—Built fifty masonry stoppings and seven overcasts. Have very recently made a new air shaft 90 feet in depth and 100 feet area, at the rear end of the workings, which will materially improve the ventilation.

Fayette City.—Built thirty-five masonry stoppings and four overcasts.

Tremont.—Built twenty masonry stoppings and two overcasts. A 25 x 8 foot Robinson fan is in course of erection.

VESTA COAL COMPANY

Vesta No. 1.—A 6-foot Jeffrey fan has been installed.

Vesta No. 3.—A 6-foot Jeffrey centrifugal fan has been installed.

Vesta No. 4.—Installed one 6-foot Jeffrey centrifugal fan, and one pair of 42 x 60 inch haulage engines. Built forty stone stoppings and increased the sectional area of the main airways.

PITTSBURG COAL COMPANY

Arnold No. 1.—Built twelve brick stoppings and one overcast.

Arnold No. 2.—Have made a new slope opening, 400 feet in length and 75 feet in area, has been made, and an 8-inch exhaust steam line has been put in the mine to assist in the saturation of the air currents in cold weather. Built eighteen brick stoppings and six overcasts.

Somers No. 2.—Built six masonry stoppings.

Somers No. 4.—Built six masonry stoppings.

PEOPLES COAL COMPANY

Pike.—Built twelve brick stoppings and five overcasts. Removed all electric wires from the return to the intake air courses. Installed two gas-proof mining machines.

NAOMI COAL COMPANY

Naomi.—Built twenty-four concrete stoppings. Changed electric wires from the return to the intake airways, and installed two gas-proof mining machines.

DIAMOND COAL AND COKE COMPANY

Diamond.—Built fifteen concrete stoppings.

PATES COAL WORKS

Umpire.—New operation in the old Umpire mine leased from the Monongahela River Consolidated Coal and Coke Company. The equipment is new .

MT. HOPE COKE COMPANY

Mt. Hope.—A new mine equipped with a Lepley fan driven by an electric motor, one electric locomotive, modern tipple and 75 rectangular coke ovens.

PROSECUTIONS FOR VIOLATIONS OF THE MINING LAWS

William Chalfant and William Young, Fayette City mine, were charged with unlocking their safety lamps inside the mine, in violation of the law. At a hearing in the Squire's office the case was dis missed on account of insufficient evidence.

Mike Wilson, superintendent and owner of the Peacock mine, was charged with failure to provide an anemometer for the Mine Foreman, and failure to countersign the Mine Foreman's record book.

Information was made at the same time against the Mine Foreman, William Muir, charging him with making false entries in the record book, and failure to measure the air currents as required by law. The court sentenced them to pay a fine of twenty-five dollars and costs.

David Edmonds and Frank Moody, drivers at the Little Redstone mine, were charged with traveling on the motor road against the orders of the Mine Foreman. The case was dismissed at the hearing on account of insufficient evidence.

Joseph Prevish, a driver at the Little Redstone mine, was charged with using impure oil. He paid a fine of five dollars and costs.

James Miller, a machine runner at the Tremont mine, was charged with using impure oil. He entered a plea of guilty and sentence was suspended by his paying the costs.

John Brotoski, Andrew Druste, Charles Cartwat and Andrew Zubie, miners at the Naomi mine, were charged with passing beyond a danger signal. At the trial, due to insufficient envidence, the verdict in each case was "not guilty, the defendants to pay the costs," which was about forty dollars.

John Dull, Sr., and Harry Furlong, were charged with removing a danger signal in the Fayette City mine. They entered a plea of guilty and sentence was suspended by their paying the costs.

William Shotton, a miner at the Fayette City mine, was charged with breaking a brattice. He entered a plea of guilty and sentence was suspended by his paying the costs.

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